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UTAH FISH AND WILDLIFE 2000

A Plan For The Future

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UTAH

Fish and Wildlife 2000:

A Statewide Strategy for the Wildlife Program

U.S. Department of the Interior
Bureau of Land Management

Approved

8-20-93
Date

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UTAH
FISH AND WILDLIFE 2000

A PLAN FOR THE FUTURE

INTRODUCTION

Consumptive and non-consumptive uses of fish, wildlife and botanical resources have increased on public lands. This increase in use is a result of pressures from population growth, urbanization, and other types of developments and land uses.

Competing demands for these resources present the Bureau of Land Management (BLM) with a significant management challenge. Even though BLM has guidance in the form of national policies, laws, regulations, and various agreements, only progressive and innovative management can ensure adequate fish, wildlife and botanical resources to meet future demands.

In May 1987, the national level BLM Fish and Wildlife 2000: A Plan for the Future was signed by the Director of BLM. This establishes policy to be implemented by all field offices. Guidelines for fish, wildlife, and botanical resources and their habitat including management of threatened and endangered species and other special status species and their habitat are included in the national plan.

Improved management of fish, wildlife and botanical resources on public lands is the scope and design of the Fish and Wildlife 2000 plan. The success of this strategy depends on adequate numbers of personnel, internal coordination and support, and external coordination/outreach.

Additional national strategy plans that provide more detailed goals and objectives are being developed for waterfowl, fisheries, big game, upland game and non-game birds, Watchable Wildlife and rare plants and natural communities. Each state is using these strategic plans for guidance in developing Resource Management Plans (RMP).

The goals and objectives of Utah Fish and Wildlife 2000 are derived from the national strategy Fish and Wildlife 2000 plan and the various specific strategic plans tailored to resources and conditions in Utah. This plan identifies the funds and work force necessary to accomplish BLM's goals and objectives on the highest priority projects and actions by the year 2000. This plan is tiered to the national Fish and Wildlife 2000 plan and the national strategic plans.

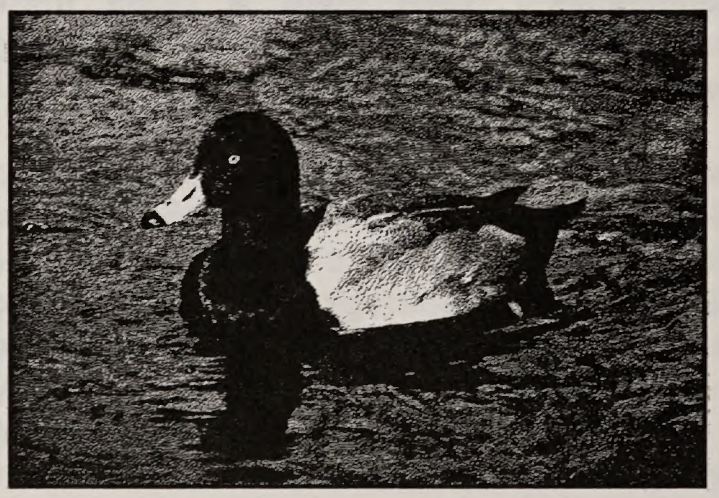
RELATIONSHIP TO THE BUREAU PLANNING SYSTEM

The Bureau Planning System is composed of three tiers: (1) a policy tier; (2) a resource management plan tier; and (3) a resource activity plan tier.

The policy tier identifies goals, objectives, priorities, alternatives, and other factors for use in planning. The national Fish and Wildlife 2000 and the Utah Fish and Wildlife 2000 plans are a part of the policy tier.

The RMP is a land use planning document in effect for up to 10 years. In RMPs, managers allocate resources and select appropriate uses for public lands based upon direction from the policy tier under the principles of multiple use and sustained yield.

Resource activity plans include specific actions and on-the-ground projects to implement the objectives and decisions made in the RMP. For the fish and wildlife program, these plans are referred to as Habitat Management Plans (HMPs). These HMPs cover a defined geographical area and are developed for habitat areas of special significance relative to laws and regulations, significant economic or recreational values, species or populations sensitive to changes in land uses, and habitats of special significance such as aquatic and riparian areas.



SIGNIFICANCE OF BLM FISH, WILDLIFE AND BOTANICAL RESOURCES

The BLM in Utah administers 22 million acres of land (approximately 42 percent of the total land area in the State). An additional 9.8 million acres of Federal mineral estate are managed by BLM.

Utah's fish, wildlife, and botanical resources are highly diverse. Fish species include trout, bass, perch, and catfish. Other wildlife include antelope, elk, deer, desert and Rocky Mountain bighorn sheep, moose, bison on the Henry Mountains, several species of upland game, waterfowl, raptors, and numerous species of non-game migratory birds. The habitat acreage figures are broadly categorized and are shown on Table 1. Plant species that occur on Utah's public lands occupy areas from hot desert to alpine.

Threatened and endangered (T&E) animal species include fish from the Colorado River system and the desert tortoise from the Mohave Desert. T&E plant species include cactus and riparian species.

Threatened and endangered species are those designated as such by the Fish and Wildlife Service (FWS). Other special status species include those listed by the State of Utah and species that are either proposed or candidates for listing as threatened or endangered by the FWS. Forty species in Utah are listed as threatened or endangered. (See Table 2) Special status species are defined as those species listed as threatened or endangered, proposed to be listed as such, species that are candidates for listing, State listed species, or any other rare, endemic or sensitive species.

The annual economic value of fish and wildlife on a State-wide perspective is $206,234,000 (See Table 3). (taken from the "1985 National Survey of Fishing and Hunting, and Wildlife Associated Recreation")

TABLE 1
MAJOR HABITATS ON BLM LANDS IN UTAH (1991)

HABITATS	ACRES
Big Game	22,195,113
Upland Game	20,398,818
Riparian	161,192
Waterfowl	122,200
Wetlands	42,532
Reservoirs	6,631
Lakes	2,900
Streams (Miles)	5,905

TABLE 2
SPECIAL STATUS SPECIES IN UTAH (June 1993)

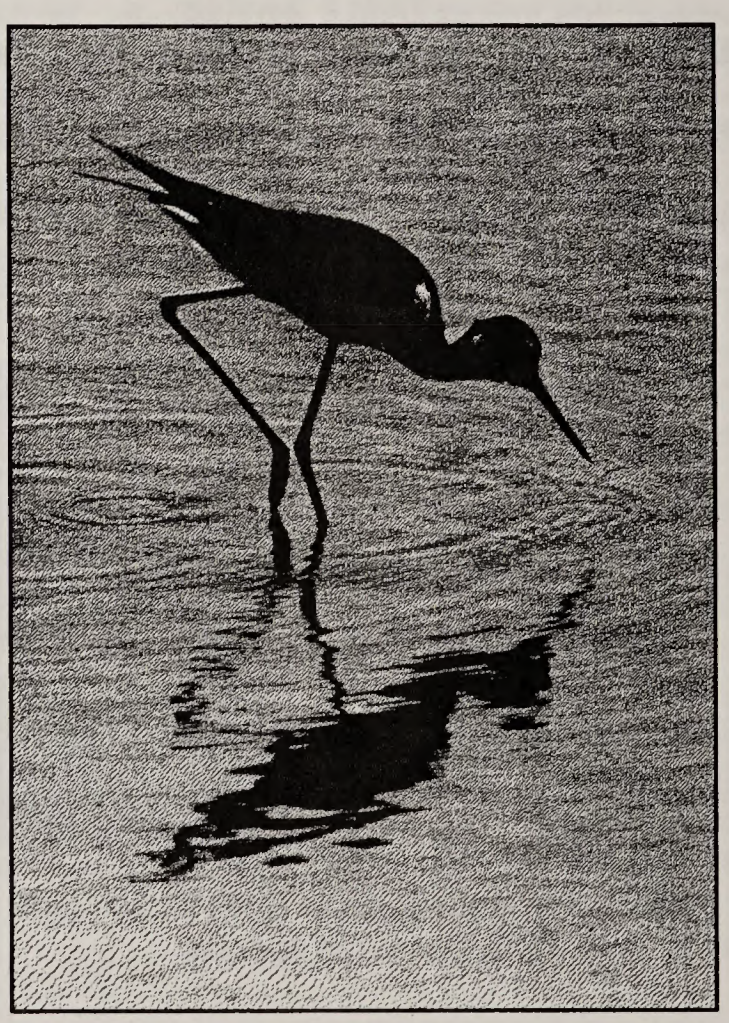
	FEDERAL STATUS*		STATE STATUS***	
	T/E LISTED	CANDIDATE**	T/E LISTED	SENSITIVE
Mammals	2 (2)	26 (24)	3 (3)	24 (23)
Birds	5 (5)	11 (11)	4 (4)	18 (18)
Reptiles & Amphibians	1 (1)	4 (4)	3 (3)	20 (18)
Fish	8 (7)	7 (7)	10 (9)	8 (7)
Invertebrates	1 (0)	16 (15)	0	0
Plants	23 (17)	124 (93)	0	0
Total	**40 (32)**	**188 (154)**	**20 (19)**	**70 (66)**

* Numbers in parentheses are those that occur or likely occur on BLM administered lands.
** Includes Category 1 and 2 candidate species only. Does not include 3 A, B, or C species.
*** There is substantial overlap with Federally listed species.

TABLE 3
RECREATION PARTICIPANTS$_1$ IN UTAH (1985)$_2$

	TOTAL	EXPENDITURES$_3$
HUNTERS	252,000	$57,318,000
ANGLERS	433,000	$106,283,000
NON-CONSUMPTIVE WILDLIFE USERS$_4$	434,500	$42,633,000
TOTAL	**1,119,500**	**$206,234,000**

1 16 years and older.
2 1985 Survey of Fishing, Hunting and Wildlife Associated Recreation.
3 Total expenditures, trip related.
4 Non-harvesting activities, such as feeding, photographing and observing fish and other wildlife on trips or outings more than one mile from home. Does not include trips to zoos or parks.



GOALS AND OBJECTIVES FOR FISH AND WILDLIFE RESOURCES

There are six major areas of emphasis in the Utah Fish and Wildlife 2000 plan. These areas include: Wildlife Habitat Management, Fisheries/Aquatic Habitat Management, Special Status Species Management, Human Resource Management, Internal Coordination and Support, and Public Outreach. The Statewide goals and objectives for each of the six areas of emphasis are discussed in the following sections.

WILDLIFE HABITAT MANAGEMENT

Wildlife habitat is divided into five categories: big and upland game, waterfowl/wetland, raptor, riparian, and nongame.

The public lands provide ample opportunity to furnish the basic habitat needs of all species. The recognition of the ecological importance and economic value of these species is beginning to focus attention on animals other than those with "game" status. The Utah Division of Wildlife Resources (DWR) is working closely with BLM, other Federal, State, and private groups, to establish a data base on habitat requirements and current distribution of nongame species. Demands on public land resources have increased dramatically during the past 10 years. Managers are being challenged to provide adequate habitat for all species of wildlife, in addition to the traditional "game" animals. Conflicts exist between the various uses of the public lands, but there are mechanisms to resolve those conflicts. Competition occurs between livestock and deer, elk, antelope, and bison.

Riparian and wetland areas are becoming focal points for management action. These areas provide a crucial element in the life cycle of a high percentage of terrestrial, as well as aquatic wildlife in Utah. Riparian areas are highly visible and play a key part in the management of watersheds. Riparian/wetland management is part of a separate plan and will be discussed here only as it applies to specific wildlife issues.

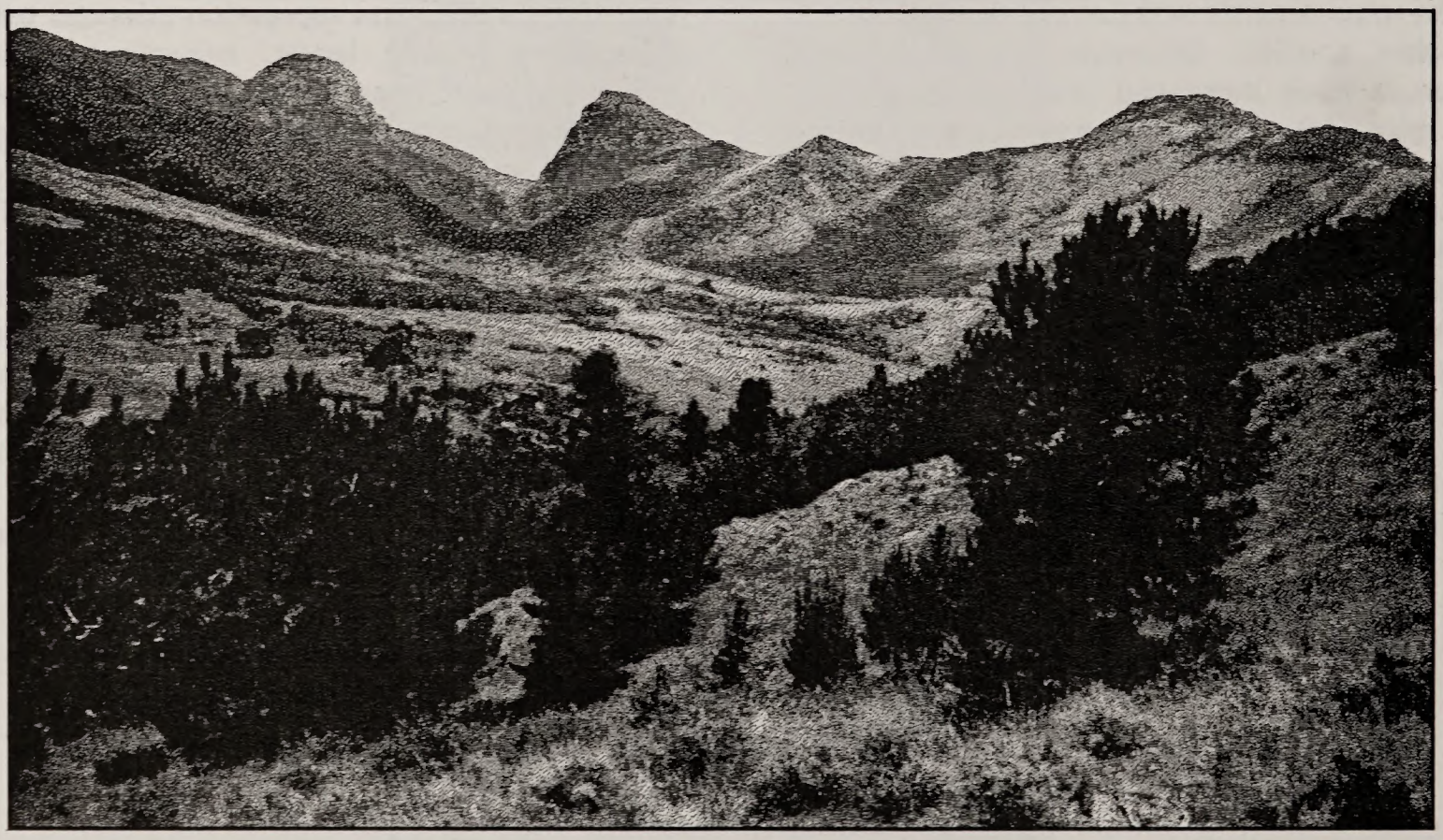
The opportunity exists to enhance the habitat for most wildlife species and also to reduce the pressure being placed on private lands. There are continuing conflicts between private land owners, wildlife, and recreation oriented uses. Access to public lands, improved habitat condition, and changes in livestock grazing (including the retirement of grazing privileges with willing participants) will, in some cases, serve to improve conditions for wildlife. The following sections include brief summaries of management actions that elevate wildlife management on public lands to a status equal with other uses. It must be recognized that, although wildlife is separated into several groups, management actions consider the effects on all categories. The enhancement for multiple species is a common result of most actions.

BIG AND UPLAND GAME HABITAT

Big game species on public lands in Utah include mule deer, elk, bison, antelope, bighorn sheep, and moose. Upland game species primarily include sage grouse, dove and chukar. Game species on public land must be provided habitat of sufficient quantity and quality to sustain ecologically viable populations. Public demand for consumptive and non-consumptive use of big game species is increasing. Due to this demand and because private, state, and other federal agency lands are subject to additional demands, BLM administered lands become increasingly important for the management of big game species.

Many opportunities exist to improve habitat quality on the public lands. Public access is a concern on a relatively small portion of public lands.

A feature of big game management unique to Utah is the function of interagency committees. Local interagency committees are comprised of DWR, Forest Service (FS), and BLM representatives that make recommendations on big game harvest of deer, elk, antelope, moose, bighorn sheep, bison, and mountain goat. The state committee consists of a representative from the DWR, FS, and the BLM. The state committee acts as a biological fact finding group for the Board of Big Game Control. This three member committee takes big game harvest recommendations from local interagency groups and combines these into a consolidated recommendation for the Board of Big Game Control. The recommendation presented at public meetings is considered for final action in setting the various hunting seasons. Participation of BLM biologists and managers in this process, from the Resource Area to the State Office, provides a key mechanism for habitat management on public lands.



The two major goals for game management on BLM administered lands in Utah are described below.

Goal

Provide sufficient quality habitat to support population levels of all game species as identified through the planning system in cooperation with DWR.

Objectives

1. In cooperation with DWR and private conservation groups, lands will be acquired from "willing sellers" in the Book Cliffs. Cooperative management will be emphasized for wildlife, riparian habitat, enhanced water quality, fisheries, and recreational opportunities.

2. Complete habitat inventories and classifications on important big game winter habitat on an estimated 12,000,000 acres by 1996.

3. Identify habitat limitations that prevent game species from reaching management goal numbers or other population goals.

4. Continue the exchange of information on wildlife use areas and life history information, using the graphic information system (GIS).

5. Prepare RMP amendments to incorporate the identified actions (including the determination of the desired ecological status of identified key habitat areas) necessary to reduce resource conflicts and establish priority management for selected land areas.

6. Modify existing and prepare new HMPs to reflect the efforts needed to achieve population and/or harvest goals identified through the planning decisions.

7. Implement priority projects and provide maintenance as identified in existing plans. Incorporate priorities from new management plans in a logical sequence to secure habitat for priority game species.

8. Continue current partnerships and develop new partnerships with advocate groups, such as the Rocky Mountain Elk Foundation, Foundation for North American Wild Sheep, One Shot Antelope Hunt Foundation, and others.

9. Develop a monitoring system to track habitat conditions and resource conflicts to ensure that priority actions are completed first and that projects are effective.

Goal

Provide hunting opportunity to meet the public demand for the next 10 years.

Objectives

1. Utilize the deer and elk management plans prepared by DWR through the process identified by the State of Utah H. B. 25. These plans will establish population and/or harvest levels by herd unit. This process will require input and coordination with the public land management agencies, landowners, sportsmen, and the general public.

2. Through the interagency process and the BLM planning process, management plans will be developed for moose, bighorn sheep, and antelope. These plans will establish harvest and/or population levels and provide habitat for base populations of big game to achieve those harvest projections and/or population levels.

3. A portion of the Henry Mountains inhabited by bison will be established as an Area of Critical Environmental Concern (ACEC) with management emphasis for bison. This will be identified in the Henry Mountain RMP scheduled to be completed in late 1993 or early 1994.

4. The needs of upland game will be integrated in the land use planning and environmental assessment process.

5. Partnerships will be developed with private organizations such as the National Wild Turkey Federation and others that express interest in enhancing and protecting important upland game habitat.

6. HMPs that directly benefit upland game habitats, including construction of specific projects, will be implemented.

7. BLM will coordinate with DWR in transplanting species such as wild turkey into suitable habitats.

WATERFOWL/WETLAND HABITAT

In February 1989, BLM published **Waterfowl Habitat Management on Public Lands - A Strategy for the Future.** There have been limited, but successful, efforts at improving waterfowl habitat. These efforts have included fencing valuable wetlands, creation of ponds, and in the case of the Pariette Wetlands area, creation of an entire new wetland/aquatic habitat complex. Additional opportunities exist to improve waterfowl habitat on public lands. These opportunities include protecting habitat at livestock watering ponds/reservoirs, creation of potholes in wetland complexes, and construction of various projects (e.g. nesting platforms) in unused, but otherwise suitable habitat.

Management actions that will be taken to meet the waterfowl/wetland habitat goals and objectives include: (1) Inventory and classify waterfowl habitat, (2) Enhance waterfowl habitat through more intensive management and implementation of projects, (3) Acquire waterfowl habitat, (4) Maintain waterfowl habitat that is in good or better condition and, (5) Develop cooperative management plans with other agencies and interested organizations.

Numerous species of shorebirds and other nongame species have benefitted from existing developments and are primary concerns in the management and development strategy for other complexes.

Goal

Provide habitat to increase waterfowl use on public riparian/wetland lands by 50 percent by the year 2000.

Objectives

1. Complete a statewide riparian/wetland and standing water inventory and habitat suitability classification by 1994.

2. Establish at least one conservation/education area in each District. Emphasis will be on the ecosystem management of riparian and wetland areas.

3. Determine the current number of breeding pairs of waterfowl and production by species, by breeding area.

4. Establish desired breeding pair densities by species and by habitat area.

5. Modify existing activity plans to reflect changes required to achieve wildlife use goals by 1995.

6. Prioritize and implement projects/actions on a Statewide basis to achieve a 50 percent increase in waterfowl production by 2000.

7. Identify areas for acquisition through exchange or through partnerships with DWR, the Nature Conservancy, Audubon Society, Ducks Unlimited, and other groups.

8. Continue current partnerships and strengthen partnerships with advocate groups such as Ducks Unlimited.

RAPTOR HABITAT

In January 1989, BLM published the report **Raptor Habitat Management Under the U.S. Bureau of Land Management Multiple-Use Mandate.** In Utah considerable attention has been focused on the habitat needs of raptors. These include the protection of nesting trees, cliff nesting areas, roosting structures, identification of foraging areas, and restrictions on other uses during crucial time periods, such as during nesting and migration. Identified needs include: analyzing the effects of livestock grazing and habitat condition on raptor prey species, effects of recreation activities and other land uses, identifying seasonal use by habitat area and the relationships between raptor and prey species on these areas, identifying additional high-density areas and monitoring their use and developing livestock management techniques which would benefit raptors.

The management actions that will be taken to meet the raptor habitat goals and objectives include: (1) Inventory key habitats, (2) Develop and implement management programs, (3) Conduct monitoring studies and, (4) Coordinate the inclusion of T&E raptors in appropriate recovery plans.

Goal

Provide suitable habitat conditions for all birds of prey through the management of essential habitat components. Identify and establish management goals for crucial raptor use areas.

Objectives

1. Identify raptor species that do not have an adequate information base on habitat needs and behavioral patterns. Give priority to providing the missing information through cooperative efforts with concerned interest groups and DWR. Participate in monitoring activity with other agencies and organizations on public lands.

2. Define crucial winter use areas and define the habitat necessary to maintain wintering populations as determined by DWR. Develop management plans to maintain the defined areas in an ecological condition to support a winter prey base and necessary isolation from human disturbance.

3. Inventory nesting raptors to identify their habitat needs, and identify associated conflicts with other resource and human use activities. Develop restrictions and mitigation measures to reduce those conflicts to an acceptable level.

4. Manage, on a continuing basis, raptor habitats on public land by incorporating habitat and prey management considerations in land use and activity plans and through protective provisions in leases, licenses, or permits issued by BLM.

RIPARIAN HABITAT

The management guide for riparian resources is covered under a plan titled **Utah Riparian-Wetland Area Management Strategy** and the BLM Riparian-Wetland Initiative for the 1990's. Key elements of the plan are based on the Bureau Plan. Total statewide riparian areas are currently estimated at about 161,000 acres. This projection is based on an extensive inventory conducted by the Moab District Office in 1989. Each District will be conducting an extensive inventory to determine the acreage and the location of riparian habitat. Each District has established at least one riparian demonstration area that illustrates the success of proper management in maintaining these areas. The overriding goal of the state's riparian-wetland management strategy is to manage riparian areas to achieve a healthy and productive condition for long term benefits and values and to restore and maintain the natural function of riparian areas.

Riparian areas are a vital link in some portion of the life cycle of many wildlife species, especially neotropical migratory birds. Management of these areas is the responsibility of all activities. Management actions to meet riparian habitat goals and objectives include: (1) Inventory and review the status of all riparian areas, (2) Establish riparian demonstration areas in all Resource Areas, and (3) Implement riparian management restoration and protection.

Goal

Restore and maintain riparian-wetland areas so that 75 percent or more are in proper functioning condition by 1997.

Objectives

1. Complete statewide riparian-wetland inventories and establish priorities to achieve proper functioning condition on 75 percent of the total riparian-wetland habitat within each Resource Area.

2. Modify existing and develop new activity plans to incorporate management actions to achieve the desired riparian condition.

3. In conjunction with the range and watershed programs, establish the desired ecological condition that will achieve the desired watershed condition, range condition, and wildlife species diversity in riparian areas.

NONGAME HABITAT

In June 1992, BLM published the report **Nongame Migratory Bird Habitat Conservation Plan**. This plan represents the strategy to restore and enhance nongame wildlife and its habitat on BLM lands. The extent of nongame habitat and the number of species (including population sizes) have not been identified except for species with special status (i.e. T&E). BLM is cooperating with DWR and other agencies to document life history and distribution information of all vertebrate and invertebrate species in Utah. This data will be placed in a data base and GIS which is accessible to all cooperators. Distribution, habitat, and related data will be shared with DWR as it is gathered by BLM.

Goal

Complete the geographic distribution and habitat requirements data base of nongame species by 1996.

Objectives

1. Through the challenge cost share program, in coordination with DWR, the Utah Natural Heritage Program, and other interested conservation groups, establish a data base for the habitat requirements of nongame species. Develop distribution maps for key species that will be used to identify potential conflicts with other resource uses and delineate data and distribution gaps.

2. Continue implementation of the Watchable Wildlife program through increased signing, development of pamphlets, and continued cooperation with interested publics.

3. Provide a mechanism to exchange data between interest groups. Existing systems and computer programs will be utilized (Arcinfo, GIS, etc.) and a communications system set up to facilitate the data exchange. Responsibility for maintenance of the data bases will remain with DWR.

Goal

Develop management guidelines to enhance or maintain habitat for key nongame species.

Objectives

1. Complete an extensive inventory for key species by priority area by 1995. Agreements for conducting the inventories will be directed to conservation groups such as the Defenders of Wildlife, Audubon Society, American Birding Association, and the Natural Heritage Program.

2. Determine viable population levels for key species by habitat type and develop management guidelines to maintain biodiversity.

3. Implement ecosystem management by developing common habitat requirements for the various life stages of the key species and relate these to other species.

4. Establish a monitoring system that will determine if habitat is being provided to achieve/maintain viable populations.

5. Continue existing partnerships and develop new partnerships with advocate groups such as the American Birding Association, Audubon Society, Defenders of Wildlife, and others.

FISHERIES/AQUATIC HABITAT MANAGEMENT

The public land provides yearlong habitat for a diverse array of fresh water fish species and other aquatic organisms. There are 5,900 miles of perennial stream and 9,500 acres of lakes and reservoirs on the public land in Utah.

Fishing opportunities include cold water fishing for trout and warm water fishing for bass and catfish. Some high value fish species, such as the Bonneville cutthroat trout, Bear lake cutthroat trout, and the Colorado and Lahontan trout are remnants from ancient populations now isolated in limited and diminishing habitats. Other fish are important for recreation and are actively sought by the sport fishing public. Still others are considered to be nongame species, that occupy an important place in the aquatic ecosystem. Nongame fish species provide the base for the food chain and are used as an indicator of the health of aquatic systems.

The riparian system must also be considered when management actions and impacts are being considered. Much of the food base for macroinvertebrate species comes from the associated riparian zone. The primary categories for consideration are resident species habitat, riparian habitat and invertebrate species required to meet the goals and objectives for fishery/aquatic habitat.

Management actions include:

1. Maintain important resident fish populations and their associated aquatic habitats.

2. Monitor key aquatic and fisheries habitat by evaluating the biotic conditions index of macroinvertebrate populations.

3. Enhance fisheries through implementation of habitat improvement projects.

Goal

Increase the number of fisherman days opportunities for stream fishing by 20 percent by 2000.

Objectives

1. Develop cooperative agreements with conservation groups, such as the Stonefly Society, Isaak Walton League, and Trout Unlimited, to join in partnership in the enhancement and classification of streams.

2. Inventory all streams with 20 percent or more public land. Rank all streams as to suitability for improvement and potential to increase desired fish species numbers by more than 10 percent. This will include game and nongame species.

3. Through better riparian management and specific aquatic habitat improvement projects, increase the fish carrying capacity of trout streams with at least 20 percent public land by 15 percent (in pounds per acre).

4. Increase the game fish carrying capacity of warm water streams by 25 percent (in pounds-per-acre).

5. Classify all ponds and reservoirs as to potential for: (1) warm water fishery, (2) cold water fishery, and (3) nongame fishery.

SPECIAL STATUS SPECIES MANAGEMENT

The BLM has the responsibility for managing threatened, endangered, candidate and other rare or endemic species on about 22 million acres of public land. Collectively, these are called "special status species" (BLM 6840 Manual). The Endangered Species Act (ESA), as amended, directs Federal agencies to bring listed species and their associated habitats to a condition where the protective measures provided by the ESA are no longer necessary. Special status species management is guided by the ESA, BLM 6840 Manual and subsequent Fish and Wildlife 2000 direction, such as "Rare Plants and Natural Plant Communities: A Strategy for the Future." Thirty two (32) federally listed T&E species and 188 candidate species are known to or likely occur on BLM administered lands in Utah. (See Table 2)

Based on current direction, management actions include:

1. Inventory : Ensure that adequate baseline data are available on the distribution and condition of special status plant and animal species and their habitats.

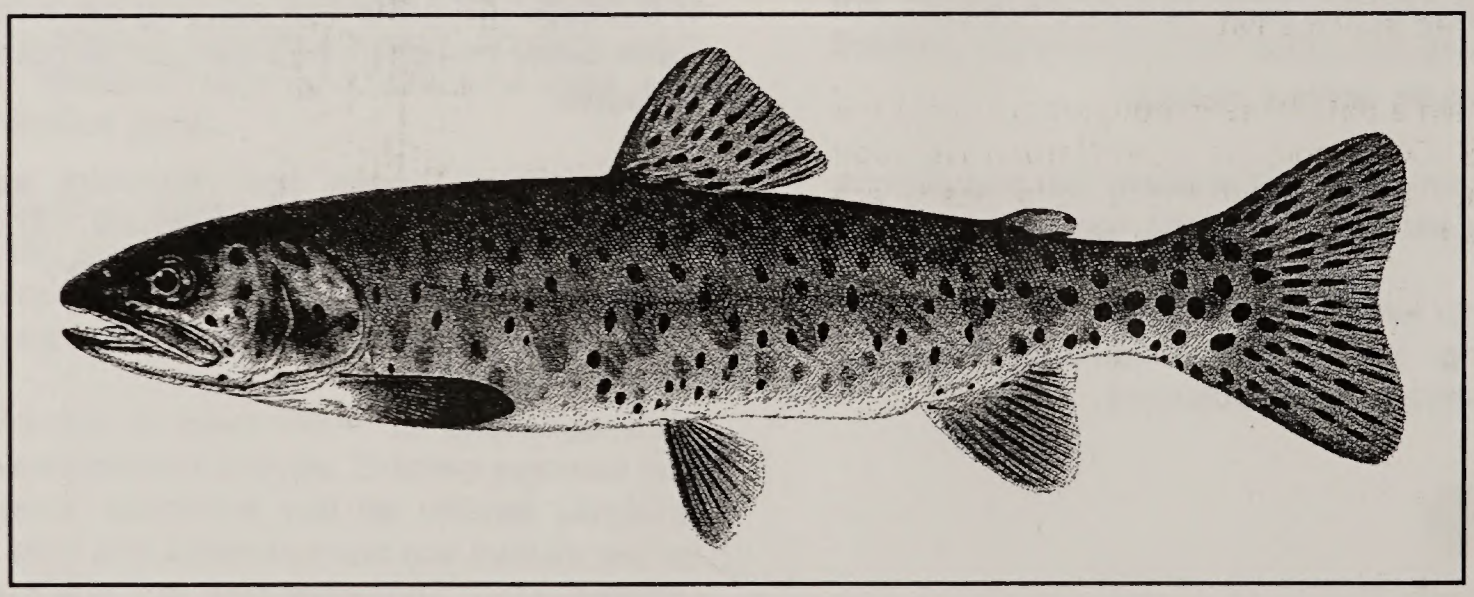
2. Monitoring and Research: Ensure sufficient data are available to evaluate management actions, to provide a basis for making informed decisions about management and conservation actions, and to assess progress towards recovery.

3. NEPA and Planning: Ensure that special status plant and animal species are properly considered in all BLM funded or authorized actions.

4. Coordination: Ensure that management for special status plant and animal species is carried out efficiently and consistently across jurisdictional and political boundaries.

5. Adequate Staffing: Ensure that adequate personnel with appropriate qualifications are available to carry out and monitor the special status species programs.

6. Program Support: Increase awareness to gain the support of both internal and external groups.



Goal

Ensure that sufficient baseline and monitoring data are available to guarantee the protection and recovery of special status species.

Objectives

1. Develop a statewide inventory system for special status species.

2. Identify and map the distribution and habitat condition of all special status species. Priority will be given to those species at greatest risk.

3. Identify desired population numbers, habitat size and requirements necessary for conservation and recovery of special status species not included in current Recovery Plans. Efforts will be coordinated with other agencies such as FWS, FS and DWR.

4. Provide for potential reintroduction of species. Allow for the establishment of experimental populations to secure gene pools and the continued existence of special status species.

5. Following the completion of necessary studies, work with other agencies and groups to determine which species should be recommended for listing as threatened or endangered or which listed species can be down listed or removed from the threatened or endangered species list.

6. Maintain a data base in cooperation with the FS, FWS, DWR and the Utah Natural Heritage Program. Ensure that these data bases are integrated with BLM's Land Information System, including GIS.

7. Develop Resource Area monitoring plans for special status species and their habitats that measure status, trend, and progress toward meeting recovery and conservation objectives.

8. Develop monitoring standards to ensure a requisite minimum level of information is available. Develop policy and guidance to ensure that site-specific monitoring objectives are included in activity plans that address the management of special status species and their habitats.

Goal

Ensure that sufficient data are available to evaluate management actions and to provide a basis for making informed decisions. Certify that special status species are routinely and properly considered in all environmental documentation, land use plans, etc.

Objectives

1. Update BLM's Supplemental Program Guidance to provide stronger guidance for land use planning related to special status species. Specifically consider the following requirements:

(a) Identification of opportunities for acquisition or retention of lands that are essential to a particular species' recovery.

(b) Incorporation of pertinent recovery plan objectives into RMPs.

(c) Evaluation of the significance of BLM lands to the conservation of special status species and their habitats within a planning area. Give consideration to special designation of these areas to obtain necessary protection (e.g. ACECs).

2. Make certain that special status species are routinely considered during any NEPA related study. Develop guidance to ensure that NEPA compliance considers seasonality and other unique requirements necessary to properly evaluate impacts to special status species and their habitats.

3. Develop management or other activity plans for all special status species on public lands. Coordinate as necessary with FWS, NPS, FS, DWR, other agencies and experts. Priority will be given to those species at the greatest risk.

4. Establish habitat areas that are secure from conflicting uses in order to recover listed species to the point that they can be down listed or removed from the endangered and threatened list.

5. Ensure that adequate personnel with appropriate qualifications are available to implement Utah BLM's special status species program.

Goal

Ensure that proper coordination with other agencies and publics routinely occurs. Develop necessary outreach plans with the various publics. Produce internal workshops and information plans.

Objectives

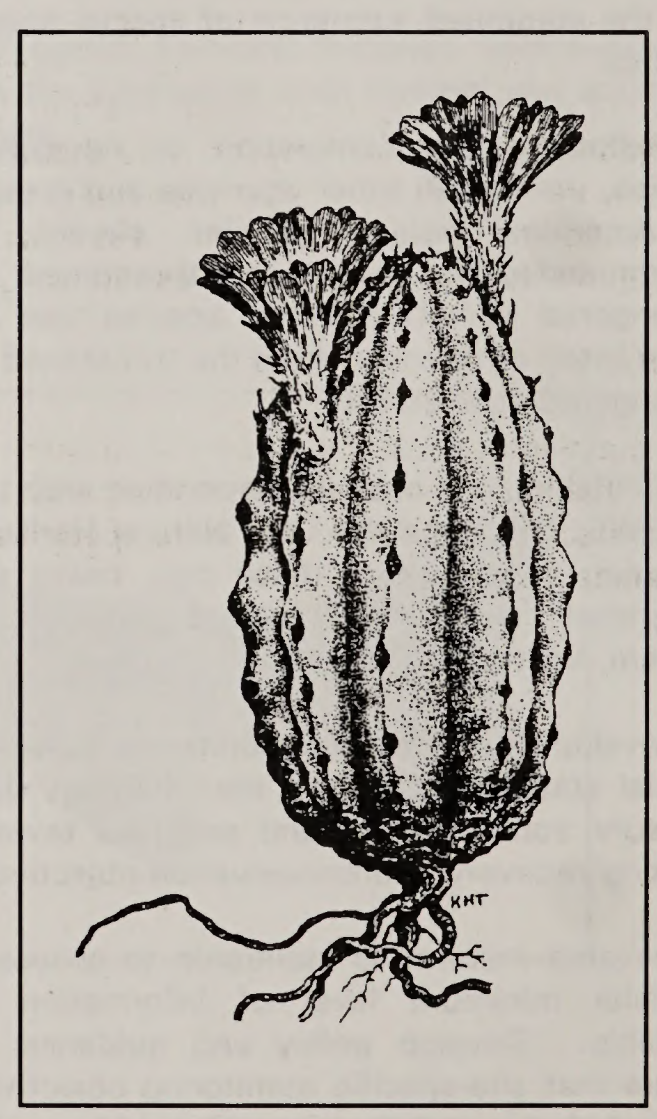
1. Develop procedures for interagency and intergroup participation in cooperative studies and research of special status species (e. g. Challenge Cost Share studies).

2. Develop an action plan to ensure cooperation between all agencies and groups involved in special status species management.

3. Assist in the development of interagency training courses and workshops with improved opportunities for field level participation.

4. Develop and implement outreach plans to improve public understanding of the need to protect and manage special status species. These plans should emphasize the ecological roles of special status species and potential benefits to public users.

5. Develop and implement an internal information plan for BLM employees to explain the need to protect and manage special status species. Make certain that employees are familiar with the Endangered Species Act, BLM 6840 Manual and other appropriate special status species direction.



HUMAN RESOURCE MANAGEMENT

Present funding levels are adequate to support a Wildlife Biologist in each District Office and one in each of the sixteen Resource Areas except one. In addition, there is a Fish and Wildlife Biologist in the Richfield District, a Fish and Wildlife Biologist in the Vernal District that is shared with the Moab District, a Botanist in the Vernal District, a Botanist in the Richfield District that is shared with the Cedar City District, and a Botanist, Riparian Coordinator and a Fish and Wildlife Biologist in the State Office. In the Dixie Resource Area (Cedar City District) there is also a biologist working on the recovery of the desert tortoise.

In order to carry out the goals and objectives of the Fish and Wildlife 2000 plan effectively, the Districts must have professional, motivated personnel who can facilitate fish and wildlife habitat management and botanical resources management in a multiple use setting. Resource specialists must maintain an adequate level of technical and professional expertise. Additionally, the Bureau must ensure that there is a work environment that motivates these specialists to give their personal best towards managing the fish and wildlife resources.

Goal

To retain and expand the expertise to carry out the habitat management objectives as described for the fish and wildlife species and botanical resources.

Objective

To provide, by 1995, the staffing needs as identified in Table 4. Utilize local hiring, co-op education students, graduate students, and other options to achieve the desired expertise level.

Goal

Ensure wildlife biologists and botanists remain current in management techniques and scientific information and provide for career enhancement.

Objectives

1. Provide each biologist the opportunity to attend at least one professional meeting each year and one training session every other year.

2. In cooperation with the Phoenix Training Center, develop in-State and District training programs to remain current in biological principles and techniques. Utilize interagency personnel assignments, statewide workshops, participation in appropriate committees, and evaluation teams for career enhancement.

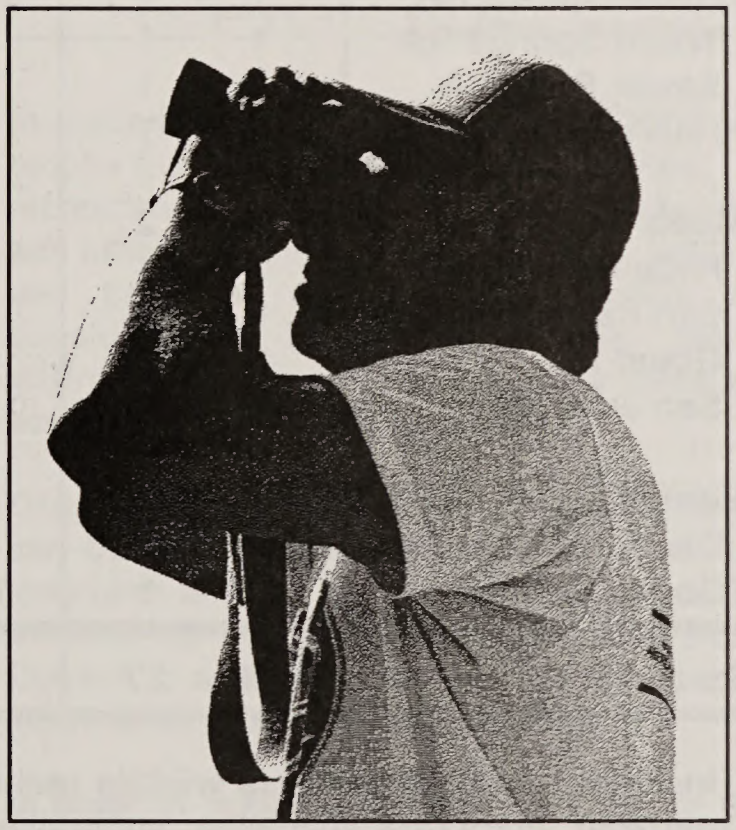


TABLE 4

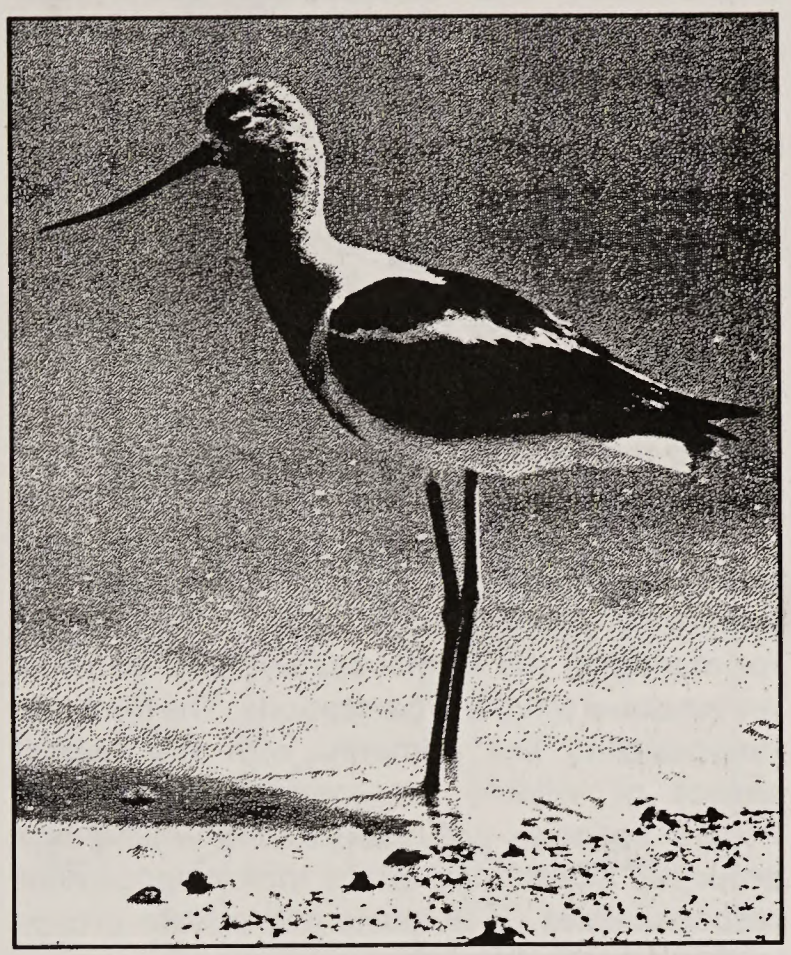
UTAH WILDLIFE PROGRAM STAFFING NEEDS

Office	Wildlife Now	Wildlife Target	Fisheries Now	Fisheries Target	Botanists Now	Botanists Target	Other* Now	Other* Target
State Office	1	1		1	1	1	1	3
Salt Lake DO	1	2		1		1		0
Bear River RA	1	1		0		0		2
Pony Express RA	1	1		0		0		2
Cedar City DO	1	1		1		1		1
Beaver Riv. RA	1	1		0		0		2
Dixie RA	2	2		0		1		2
Kanab RA		1		0		1		2
Escalante RA		1		0		0		2
Richfield DO	1	2	1	1	1	1		2
House Range RA	1	1		0		1		2
Warm Springs RA	1	1		0		0		2
Sevier River RA	1	1		0		1		2
Henry Mtn. RA	1	1		0		1		2
Moab DO	1	2		1		1		1
Price River RA	1	1		0		1		2
San Rafael RA	1	1		0		0		2
Grand RA	1	1		0		0		2
San Juan RA	1	1		0		1		2
Vernal DO	1	2		0	1	1		0
Diamond Mtn. RA	1	1		0		0	1	5
Book Cliffs RA	1	1	1	1		0		2
State Totals	**21**	**27**	**2**	**6**	**3**	**13**	**2**	**42**

* Includes positions such as wildlife technician, natural resource specialist, program manager, computer specialist, supervisory wildlife biologist.

INTERNAL COORDINATION AND SUPPORT

Effective biological resource management cannot be accomplished without the cooperation of all activities within the Bureau. Successful cooperation requires that all co-workers are informed of the many facets of the wildlife and botanical programs and are aware of possible mitigating measures which could preclude or minimize impacts to wildlife and botanical resources. At both the Resource Area and District levels, co-workers will be kept informed of wildlife program activities through reports at regular staff meetings. Biologists will also be responsible for routing articles or abstracts which will help update others on significant wildlife information or issues. An information bulletin will be another means to acquaint other employees of important activities within the wildlife program. It will be issued on an annual or semi-annual basis and highlight activities in each Resource Area and District.



Implementation of Fish and Wildlife 2000 will require expanded coordination with range, recreation, minerals, watershed management and others. This will ensure that fish, wildlife, and botanical resources will receive full consideration in all land use plans, environmental assessments, activity plans and activities of other BLM programs.

Often, resource development and use activities can be designed and implemented with little long-term adverse impacts and some positive benefits to wildlife/fish/botanical resources. Current, accurate habitat and species information is essential in this respect.

In order to achieve many of the goals of this Fish and Wildlife 2000 plan, adequate monitoring of major management actions becomes a key role of the biologist and botanist during the next several years.

PUBLIC OUTREACH

Coordination and consultation with other Federal, State, and local agencies, private organizations and individuals, are vital to BLM's management process. To improve the efficiency and productivity of BLM's fish, wildlife and botanical programs to meet public demands, Utah BLM must enhance external coordination efforts. By increasing public and other Federal and State agency awareness, program objectives can be met.

Due to the shared role in wildlife management the Bureau maintains with several agencies, it is critical that close coordination and consultation are sustained. This is particularly important with the DWR, which is responsible for managing the animal species, and with the professional private organizations. The Bureau's responsibility lies primarily with the habitat aspect of wildlife management. State and Federal agencies will be consulted whenever a proposed action may affect their management responsibilities. Individuals and private groups will be contacted whenever questions arise within their area of expertise or an action may affect their use of public or adjacent private land.

The overall goal of the fish, wildlife and botanical programs are to meet public demand for consumptive and non-consumptive uses of biological resources. The BLM must ensure optimum populations and the natural abundance and diversity of wildlife, fisheries and botanical resources on public lands. This will be accomplished through habitat protection, restoration, maintenance, enhancement, and monitoring. These management actions are a result of guidance provided by RMPs and activity plans (Allotment Management Plans, HMPs, etc).

Goal

Provide non-consumptive viewing opportunities to meet public demand for the next 10 years.

Objective

Provide necessary signs and interpretation of wildlife viewing sites as identified in the Utah Watchable Wildlife Viewing Guide. Expand the number of viewing sites as opportunities are identified. Develop brochures for each area and coordinate with the Utah Department of Transportation in the development of roadside viewing areas.

Goal

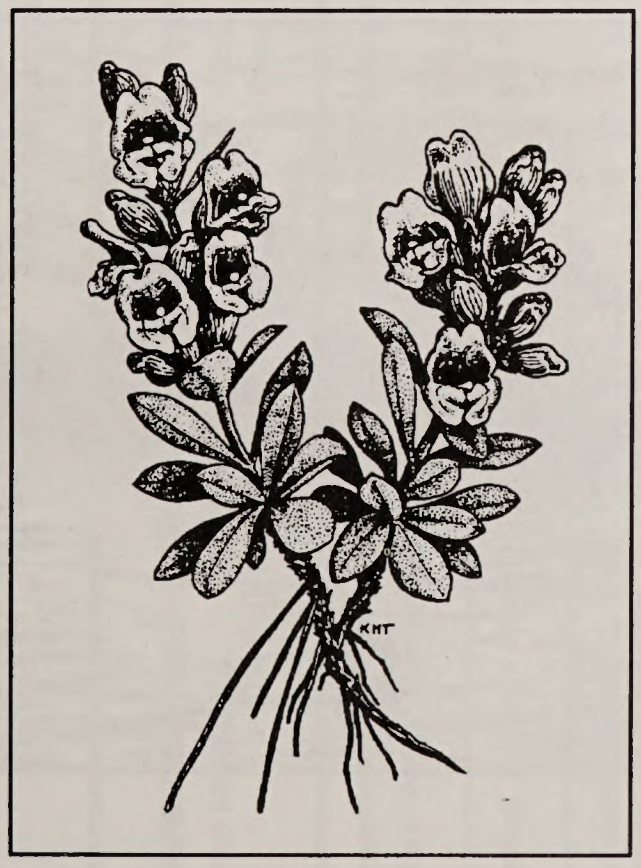
Establish an open exchange of information and ideas with government agencies and private organizations and individuals.

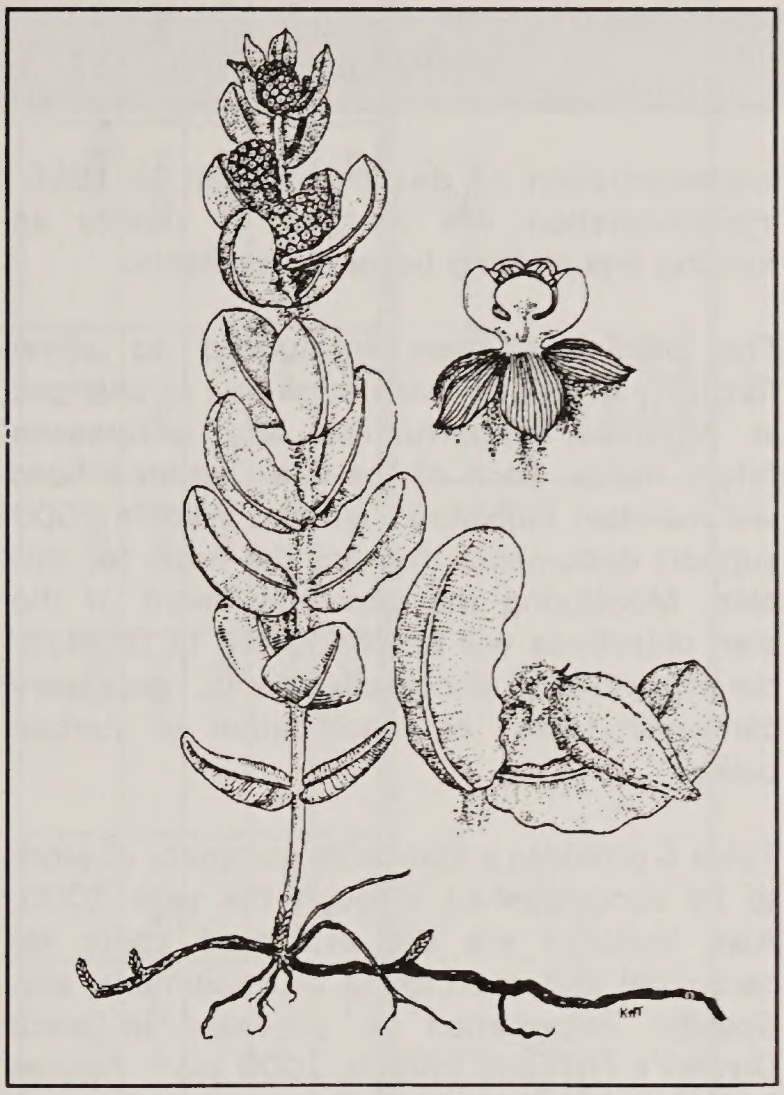
Objectives

1. Each office will maintain a list of contacts that have supported or have the potential to provide for the wildlife program and will identify community opinion makers and enlist their support for the wildlife program.

2. Each biologist will be encouraged to become involved in the activities of private groups and professional organizations and take leadership responsibilities.

3. Produce an annual report describing Utah BLM's accomplishments. Produce periodic news releases describing Utah BLM's accomplishments, forthcoming activities, and goals. Conduct field trips to show wildlife development and biological management practices. Develop brochures, posters, and videos about high-profile areas such as Pariette Wetland Management Area, Henry Mountain Bison Herd and endangered species habitat, etc.





Goal

Enlist the assistance of conservation groups and knowledgeable local organizations to identify wildlife management problems on public land.

Objectives

1. Solicit information on access needs to isolated public lands and the values associated with them.

2. Enlist the assistance of local sportsman and wildlife enthusiasts in maintaining information on wildlife habitat conditions, changes in wildlife use areas, and unique species occurrence.

3. Develop a list of wildlife project developments and maintenance needs for adoption by local groups and individuals (See Appendix II).

IMPLEMENTING UTAH FISH AND WILDLIFE 2000

Implementation of this plan began in 1990. Implementation will proceed as rapidly as funding and staffing becomes available.

The plan has been formulated to allow flexibility in its implementation due to changes in priorities, opportunities and unforeseen future needs. Each of the five District offices will maintain individual Fish and Wildlife 2000 support documents that are the basis for this plan. Monitoring the accomplishment of the plan objectives will be conducted to facilitate the reporting of accomplishments, necessary carryover tasks, or modification of certain tasks.

Table 5 provides a statewide summary of work to be accomplished through the year 2000. Also included are the estimated costs for personnel and such items as equipment, etc. Specific information is provided in each District's Fish and Wildlife 2000 plan. Figures 1, 2, and 3 provide a graphic view of the estimated funding needs for the eight major categories: (1) Monitoring, (2) Activity Plan Revision, (3) Project Development, (4) Easements, (5) Maintenance, (6) Plan Preparation, (7) Inventory, and (8) Memorandum of Understanding (MOU). This information is presented for the years 1991, 1992-1993, and 1994-2000 respectively. Figures 4 through 8 illustrate the 10 year funding needs for each District in relation to the statewide needs identified in Figures 1 through 3. Figures 9 through 16 identify the yearly funding needs for the eight major categories of management activities.

Participation by the general public, groups, and other State and Federal agencies is a key component in the accomplishment of each the District's goals. Questions may be directed to the BLM District Office or Area Office that has developed the specific item of interest as listed in Appendix II. The Utah State Office can furnish specific or general information on the Fish and Wildlife 2000 plan and concept.

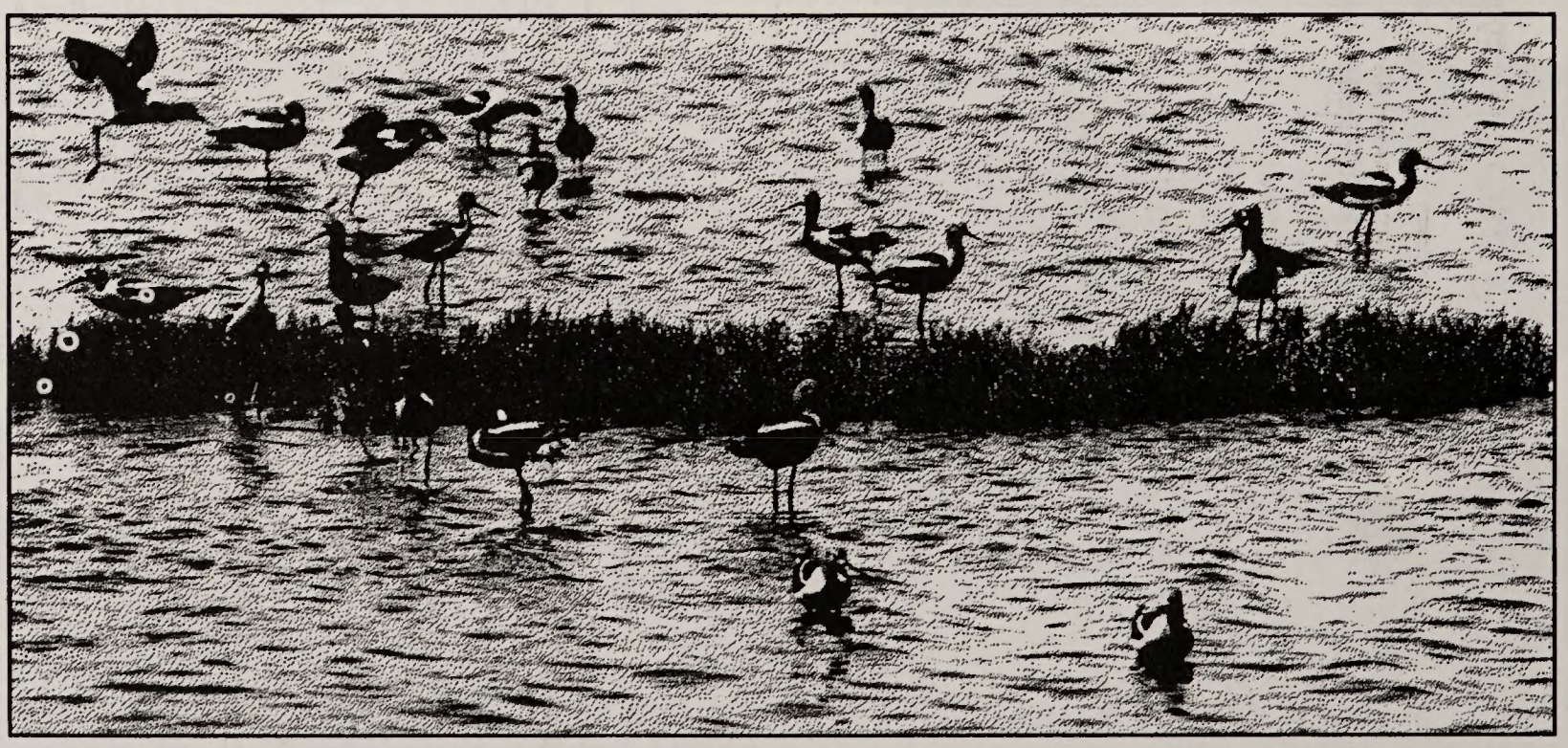


TABLE 5
UTAH STATEWIDE SUMMARY FISH & WILDLIFE 2000

	FISCAL YEARS: 1990-1991			FISCAL YEARS: 1992-1993			FISCAL YEARS: 1994-2000			TOTAL	
WORKLOAD MEASURES	Units	Cost WM Related	$000 Other	Units	Cost WM Related	$000 Other	Units	Cost WM Related	$000 Other	Units	Cost $000
1. Inventory: Actual Acres/Miles	9143500 934	587.9	339.3	7300500 1014	656.4	275.8	5012100 429	982.6	292	21456100 2377	3134
2. Monitoring: # Plans/# Study Sites	736	748.3	481.6	711	932.7	381.4	2121	3948.2	1223	3568	7715.4
3. Project Development: # Projects	314	673.1	936.9	443	377.5	1070	718	1746.9	3573.8	1475	8378.5
4. Reintroductions: Transplants, etc. (# by species)	609	26.6	34	21	74.5	47	29	139.3	135.3	659	456.7
5. # Plans Prepared or Proposed (HMPs, ACECs, CMAs, CRMPs)	71	278.4	60.2	52	243.6	112.2	98	954	271.8	221	1940.2
6. Coop. Agreements: MOUs Needed: #	36	63.5	9.1	65	55.6	14.7	170	155.3	15.3	271	313.5
7. Maintenance: #	447	310.3	134.8	532	520	781.5	1675	1606	480.6	2654	3833.2
8. # Plans Implemented	103	25.3	14.7	73	18.6	5	176	28.5	0	352	92.1
9. Easements, ROW, Acquisitions	27	81.4	46.1	637	214.1	530.2	49	610.8	279	713	1761.6
10. # Plan Revisions	26	115.4	0	7	28	1	35	110.4	22	68	276.8
11. Staffing/Skills Required (List WMs by # and types of positions, WM costs should have been incorporated above)	Statewide Summary: 21 Wildlife Biologists 5 Fishery Biologists 6 Botanists (jointly funded with Range and Watershed) 3 ADP Coordinators (shared specialty with Range and Watershed) 7 Biological Technicians 6 Riparian Specialists (multiple resource position) Realty, Force Account, Operations, Range, Hydrology, etc.									2300 WM (1990-2000) 400 WM " 500 WM " 300 WM " 700 WM " 600 WM " 5200 WM "	
TOTAL COST FOR OBJECTIVE		2937.8	2056.7		3121	3219.1		10282	6292.8	21468458	27902

APPENDICIES

APPENDIX I

AUTHORITY

Listed are the laws and executive orders under which the Bureau's wildlife program operates. In addition to these, there are manuals and instruction memoranda that give general guidance (manuals) and specific guidance relative to a particular topic (instruction memoranda).

Major Federal Authorities For The BLM Wildlife Program in Utah

STATUTES

Bald Eagle Protection Act of 1940 (16 U.S.C. 668; 54 Stat. 250; as amended, P.L. 86-70, 73 Stat. 143 (1959), P.L. 87-884, 76 Stat. 1246 (1962), and P.L. 92-535, 86 Stat. 1064 (1972)).

Clean Air Act of 1970 (42 U.S.C. 1857-58a).

Emergency Wetlands Resource Act of 1986.

Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.; 87 Stat. 884; P.L. 93-205, as amended; P.L. 94-359, 90 Stat. 913 (1974); P.L. 95-212, 91 Stat. 1493 (1977); and P.L. 95-632, 92 Stat. 3751 (1978); P.L. 96-159 (1979)).

Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.; 90 Stat. 2743; P.L. 94-579).

Federal Water Pollution Control Act (Clean Water Act) of 1977 (33 U.S.C. 1251 et seq.; 91 Stat. 1566-1611; P.L. 95-217).

Water Quality Act of 1987 (Amendments to Federal Water Pollution Control Act of 1977).

Fish and Wildlife Coordination Act of 1958 (16 U.S.C. 661 et seq.; 72 Stat. 563).

Fish and Wildlife Improvement Act of 1978 (92 Stat. 3110; P.L. 95-616).

Food Security Act of 1985 (Farm Bill).

Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711; 40 Stat. 775, as amended, 49 Stat. 1556 (1936), 74 Stat. 866 (1960), 88 Stat. 190 (1974), 92 Stat. 3111-3112 (1978)).

National Environmental Policy Act of 1969 (42 U.S.C. 4321-41; 83 Stat. 852; P.L. 91-190).

Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.).

Sikes Act of 1960 (16 U.S.C. 670a-f; 14 Stat. 1052, as amended, P.L. 93-452 and 88 Stat. 1369 (1974), P.L. 95-420, and 92 Stat. 921 (1978)).

Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.; P.L. 95-87).

Taylor Grazing Act of 1934 (as amended, 43 U.S.C. 315; 48 Stat. 1269 (1970)).

EXECUTIVE ORDERS (EOs)

EO 12342 of January 1982 (Predator Control).

EO 11990 of May 1977 (Wetlands).

EO 11988 of May 1977 (Floodplain Management).

EO 11989 of May 1977 (Off- Road Vehicles (ORVs)).

EO 11987 of May 1977 (Exotic Organisms).

APPENDIX II
SUMMARY OF VOLUNTEER AND COST SHARE OPPORTUNITIES

ACTION NAME	PLANNED ACTION(S)	KEY SPECIES	VOLUNTEER ACTION(S)	COST SHARE VALUE $	TOTAL COST $	YEAR PLANNED
Grassy Trail HMP	2 Waters	Antelope	Labor	5,000	5,000	1991
Range Mtn.	Inventory	Colo. Cutt. Trout	Labor	5,000	5,000	1991
Moab Elk	Blue Hill seeding	Elk, Deer	Dollars	3,500	5,000	1991
Red Canyon	Water maint.	Bighorn sheep	Labor, $	5,000	5,000	1991-92
Olsen Reservoir	Habitat development	Waterfowl	Labor, $	500/yr.	5,000/yr.	1991-93
North San Rafael	Water	Bighorn sheep	Labor, $	2,500	2,500	1992
Bettridge Cr. ACEC	Flumes, log-in stream str.	Lahontan trout	Labor	1,600	4,600	1991
Rush Valley HMP	Repair wet meadow water syst.	Sage Grouse Deer, Nongame	Labor Labor	1,200 1,200	2,500 2,500	1991 1991
Stansbury HMP	Salt Mt. juniper control	Deer	Labor, 30 days/yr.	2,400	7,000	1991-94
Rush Valley HMP	Black Willow plants	Bald Eagle	Labor, 10 person day	800	1,500	1991
Randolph HMP	Spring fencing	Sage Grouse, Nongame	Labor, 25 person day	2,000	5,000	1992
Horseshoe Springs HMP	Viewing trail	Waterfowl	Labor	4,000	10,000	1992
Randolph HMP	Riparian tree/ shrub planting	Deer, Antelope, Sage Grouse	Labor, 15 person day	1,600	3,000	1992
Crawford Mts. HMP	Guzzler	Deer, Antelope, Sage Grouse	Labor, 15 person day	1,200	5,000	1993
Pilot Mtn. HMP	Guzzler	Deer, Antelope	Labor	2,400	10,000	1993
Rush Valley HMP	Perch poles	Bald Eagle	Labor, poles	1,000	1,500	1991
House Range HMP	Vege. manipulation 2 Guzzlers/yr.	Elk, Deer	Materials Labor Materials	2,500/yr. 2,500@	5,000/yr. 5,000@	1991-94 1991-94

APPENDIX II (Cont.)

ACTION NAME	PLANNED ACTION(S)	KEY SPECIES	VOLUNTEER ACTION(S)	COST SHARE VALUE $	TOTAL COST $	YEAR PLANNED
Deep Creek HMP	1 Guzzler/yr.	Antelope	Material/labor	3,000@	5,500@	1991-94
	Instream structure	Fish	Material/labor	2,500/yr.	5,000/yr.	1991-94
West Desert HMP	4 Guzzlers/yr.	Antelope,	Material/labor	3,000@	5,500@	1991-94
	Guzzler maint.	Birds	Labor	2,000/yr.	4,000/yr.	1991-94
Pruess Lake HMP	Goose nests	Canada Geese	Material/labor	700	1,400	1991
West Desert Wetland Proj.	One exclosure/yr.	Waterfowl, riparian	Material/labor	3,500	7,000	1991-94
Mountain Valley MFP	2 Guzzlers reconstructed	Grouse, Chukar	Material/labor	2,500@	4,500	1991
	Roost develop.	Bald eagle	Material/labor	1,000/yr.	2,500/yr.	1992-94
Otter Creek HMP	Brush removal, plant willows	Fish, riparian	Material/labor	2,000	4,000	1992
	Gully plugs	Riparian	Labor	3,000	5,000	1993
	Instream structures	Fish	Material/labor	2,500	3,500/yr.	1991-93
Henry Mtn. MFP	Three exclosures/yr.	Riparian	Material/labor	2,600	5,400/yr.	1991-94
	Exclosure	T&E Plants	Material/labor	3,500	7,500	1991
Parker Mtn. HMP	Habitat improvement	Utah Prairie Dog	Material/equip	3,000	6,000	1992
Fish Cr. Cove	Fence	Deer	Material/labor	4,000	6,000	1992
Seven Mile	Fence modification	Antelope	Labor	1,500	3,000	1992
Parker Mtn.	Meadow exclosure	Sage Grouse	Material/labor	4,500	8,800	1994
	2 Guzzlers	Sage Grouse	Material/labor	3,000@	5,500@	1994
Henry Mtn. Bighorn HMP	2 Guzzlers/yr.	Bighorn sheep	Material/labor	3,000@	6,000@	1993-94
Buckskin HMP-Cottonwood	Seep fence	Deer, Elk	Labor	1,000	4,000	1991
Pinion HMP-Bull Spring Wash	Fencing	Deer, Elk	Labor	1,000	4,000	1991
Mineral HMP	Riparian fence	Deer, nongame	Labor	500	3,000	1991

APPENDIX II (Cont.)

ACTION NAME	PLANNED ACTION(S)	KEY SPECIES	VOLUNTEER ACTION(S)	COST SHARE VALUE $	TOTAL COST $	YEAR PLANNED
Pinion HMP						
Chockcherry Spring	Fencing	Deer, Elk	Labor	1,000	4,000	1991
Prout Wash	Fencing	Deer, Elk	Labor	1,000	4,000	1991
Meadow Sp. Cr.	Fencing	Deer, Elk	Labor	1,000	4,000	1991
Mineral HMP	Cherry Cr. pipeline	Grouse, Deer	Labor	500	1,000	1991
Sand Mtn. HMP	Virgin River plantings	Nongame	Labor	500	2,000	1991
Beaver Dam HMP	2 Catchments	Bighorn sheep	Labor	500@	3,000@	1991
Red Mtn. HMP	Catchment	Quail	Labor	500	3,000	1991
Sand Mtn. HMP	Catchment	Quail	Labor	500	3,000	1991
Paunsaguant HMP	Planting, 8 mile exclosure	Nongame	Labor	500	1,000	1991
	Planting Sheep Cr. Res.	Nongame	Labor	500	1,000	1991
Garfield HMP	Planting Sevier River	Trout	Labor	500	3,000	1991
Paria HMP	2 catchments	Antelope	Labor	500@	3,000@	1991
Garfield HMP	Panguitch catchment	Antelope	Labor	500	3,000	1991
Paunsaguant HMP	2 Catchments	Deer	Labor	500@	3,000@	1991
East Zion HMP	Dunes Meadow fence	Nongame	Labor	1,000	4,000	1992
Paria HMP	Catchment	Bighorn sheep	Labor	500	3,000	1992
Garfield HMP	Catchment	Bighorn sheep	Labor	500	3,000	1992
Paunsaguant HMP	Catchment	Deer	Labor	500	3,000	1992
Beaver Dam HMP	4 Catchments	Bighorn sheep	Labor	500@	3,000@	1992
Red Mtn. HMP	4 Catchments	Bighorn sheep	Labor	500@	3,000@	1992

APPENDIX II (Cont.)

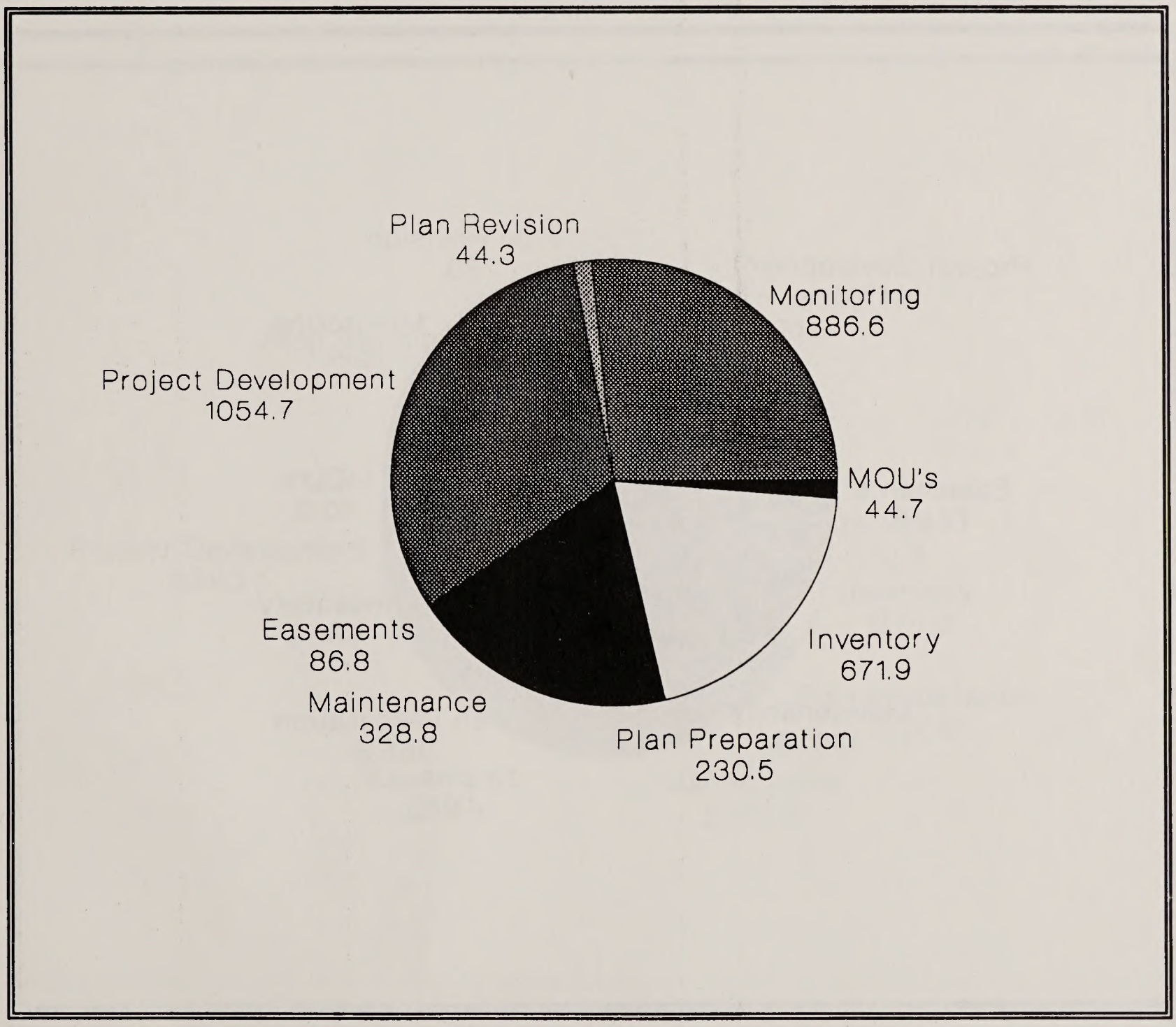
ACTION NAME	PLANNED ACTION(S)	KEY SPECIES	VOLUNTEER ACTION(S)	COST SHARE VALUE $	TOTAL COST $	YEAR PLANNED
Buckskin HMP	Tree control	Deer	Labor	2,000	4,000	1992
Pinion HMP	Spring devel.	Deer	Labor	500	1,000	1992
	Cottonwood Cr. fence	Deer, Nongame	Labor	1,000	3,000	1992
Cedar HMP	Riparian planting	Trout, Nongame	Labor	1,000	2,000	1992
Calf Cr. HMP	Calf Cr. planting	Trout	Labor	1,000	2,000	1993
Pinion HMP	13 Catchments	Deer, Elk	Labor	500@	3,000@	1993
	Spring devel.	Deer, Elk	Labor	1,000	2,000	1993
Myton HMP	Gadwall dike repair	Waterfowl	Materials	3,500	51,000	1991
	Shoveler Pond	Waterfowl	Materials	3,800	7,800	1992
	Horseshoe Pond maint.	Waterfowl	Materials	2,000	17,900	1992
	Hawk monitoring	Ferruginous Hawk	Material/labor	2,000	6,000	1992
Book Cliffs HMP	So. Canyon Reservoir	Waterfowl, Fish	Materials	10,000	70,000	1992
	Sweetwater riparian imp.	Waterfowl, Nongame	Materials	6,000/yr.	22,000/yr.	1991-94
	Black Bear study	Black Bear	Materials	5,000/yr.	20,000/yr.	1991-94
	Hawk monitoring	Ferruginous Hawk	Labor	2,000/yr.	8,000/yr.	1991-94
	T&E raptor inventory	Peregrine F., Spotted Owl	Labor	2,000/yr.	8,000/yr.	1991-94
	Guzzler	Antelope	Material/labor	3,500	5,500	1991
Browns Park HMP	Pinion/juniper chaining	Deer, Elk	Material/labor	3,500/yr.	11,000/yr.	1991-94
	River Otter reintroduction	River Otter	Material/labor	2,500/yr.	4,500/yr.	1991-94
	Pinion/juniper burn	Bighorn sheep, Deer	Material	5,300	21,600	1993
Ashley MFP	T&E plant exclosure	T&E plants	Material/labor	7,500	20,200	1991-94
Ashley MFP	Guzzler	Big Game	Labor	2,500	4,700	1991-94
	Pinion/juniper burn	Deer, Elk	Materials	5,500	32,400	1991
Crawford Mtn. HMP	Spring fence	Sage Grouse, Antelope	Labor, 5 person day	400	1,000	1992

FIGURES

FIGURE 1

FISCAL YEAR 1991 FUNDING

(values in thousands)

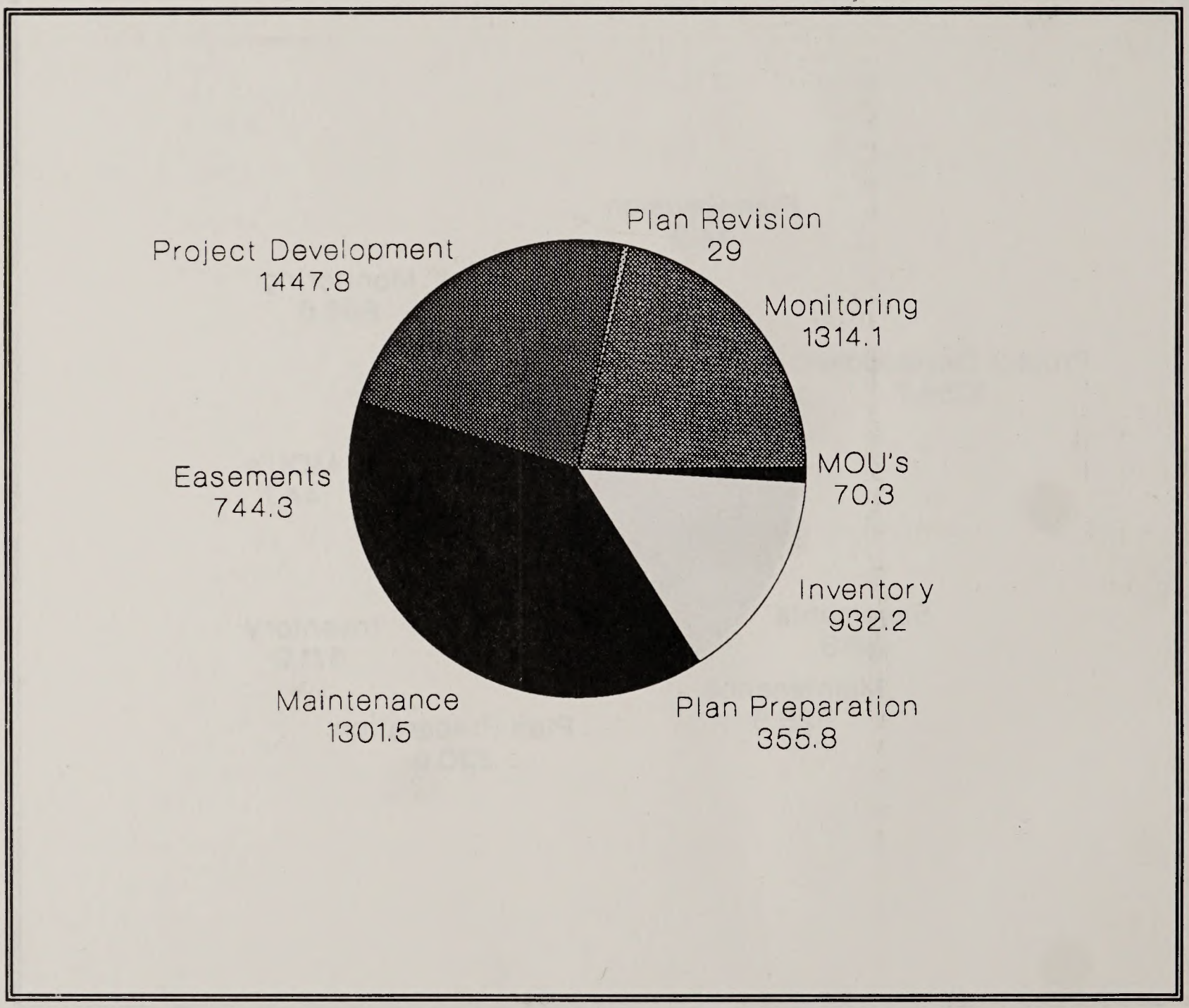


Total Estimated Costs: $3,148,300

FIGURE 2

FISCAL YEAR 1992-1993 PROPOSED FUNDING

(values in thousands)

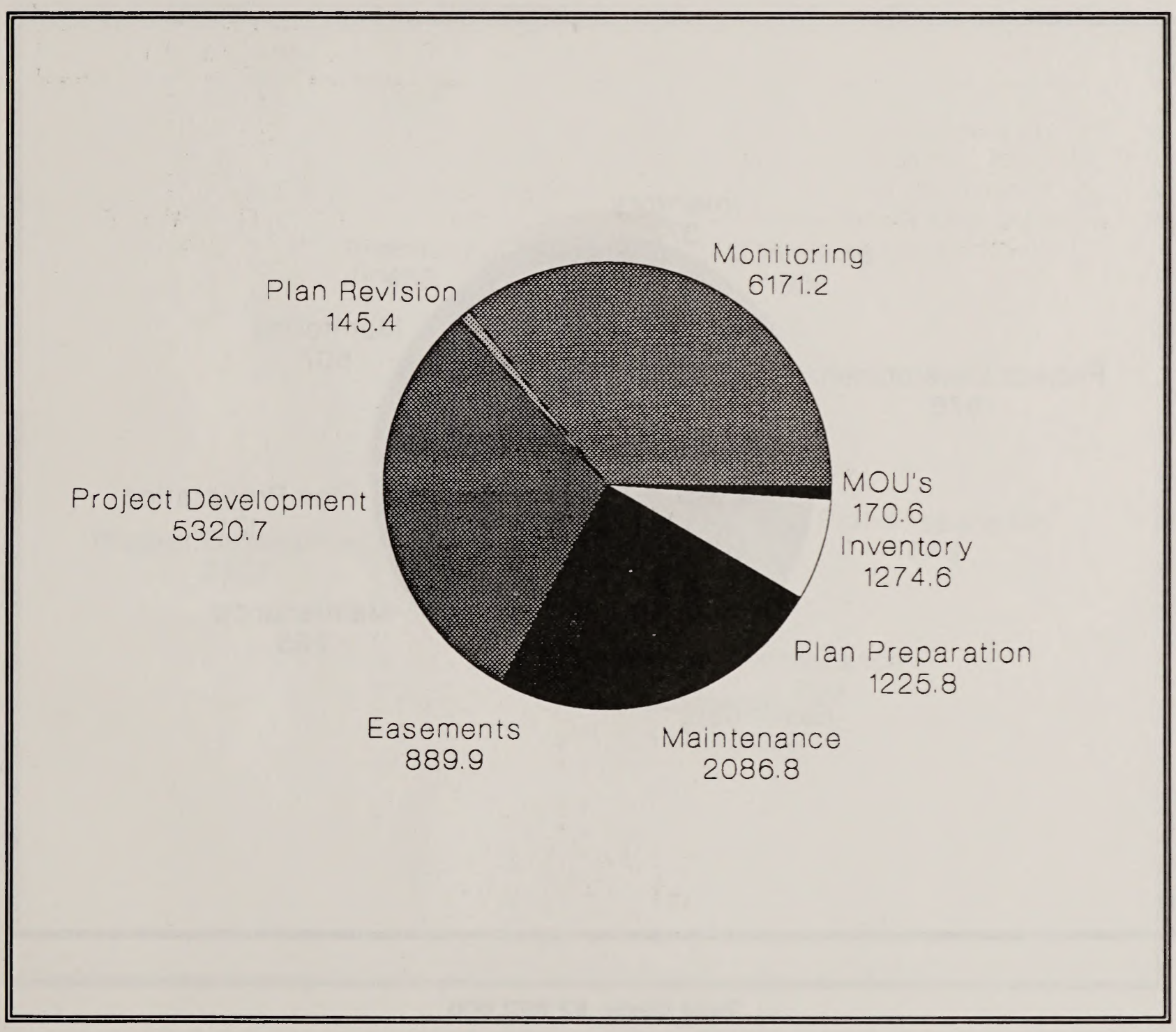


Estimated Costs per Year: $3,097,500 ($6,195,000 total)

FIGURE 3

FISCAL YEAR 1994-2000 PROPOSED FUNDING

(values in thousands)

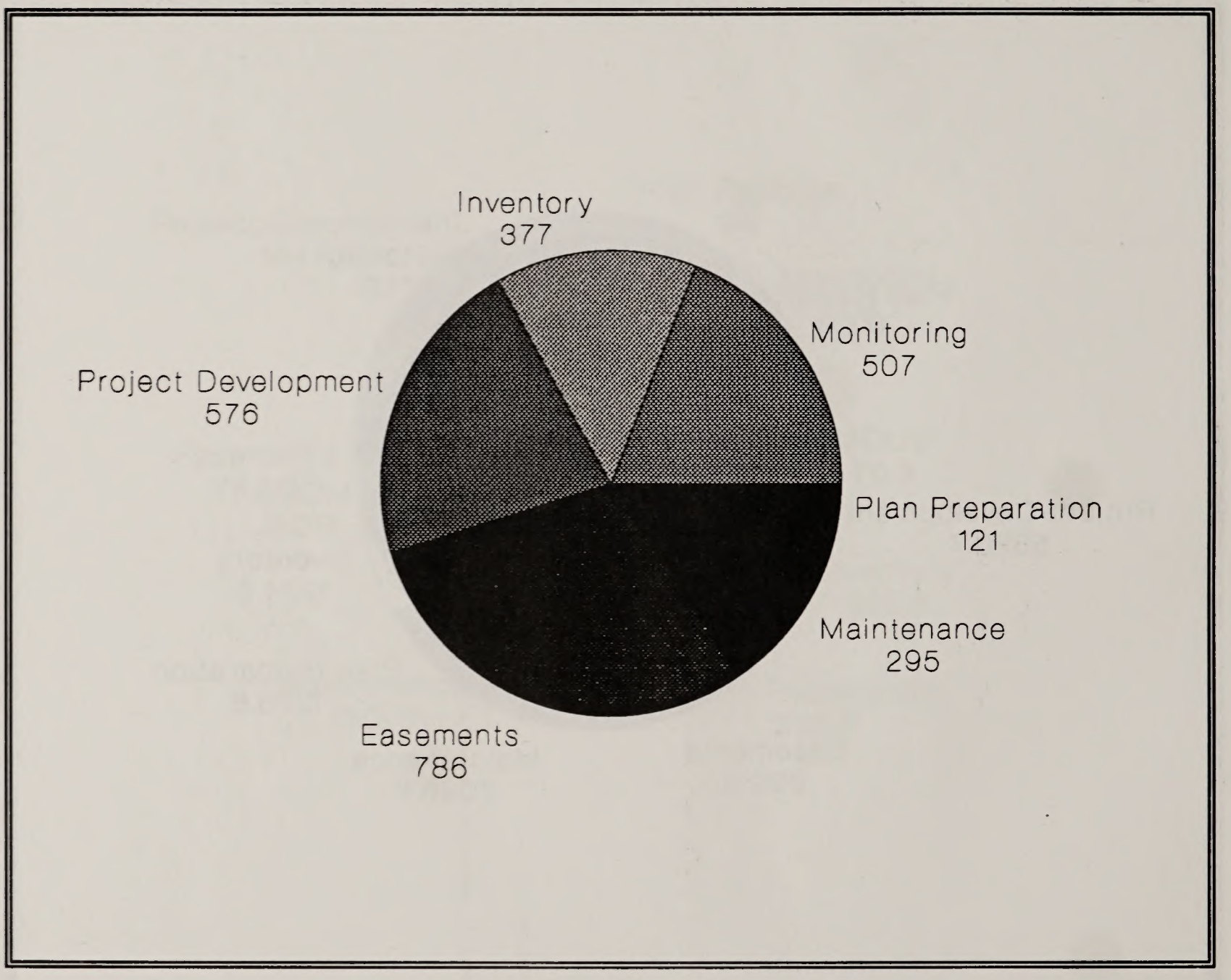


Estimated Costs per Year: $2,302,000 ($13,812,000 total)

FIGURE 4

SALT LAKE DISTRICT
TEN YEAR FUNDING NEEDS

(values in thousands)

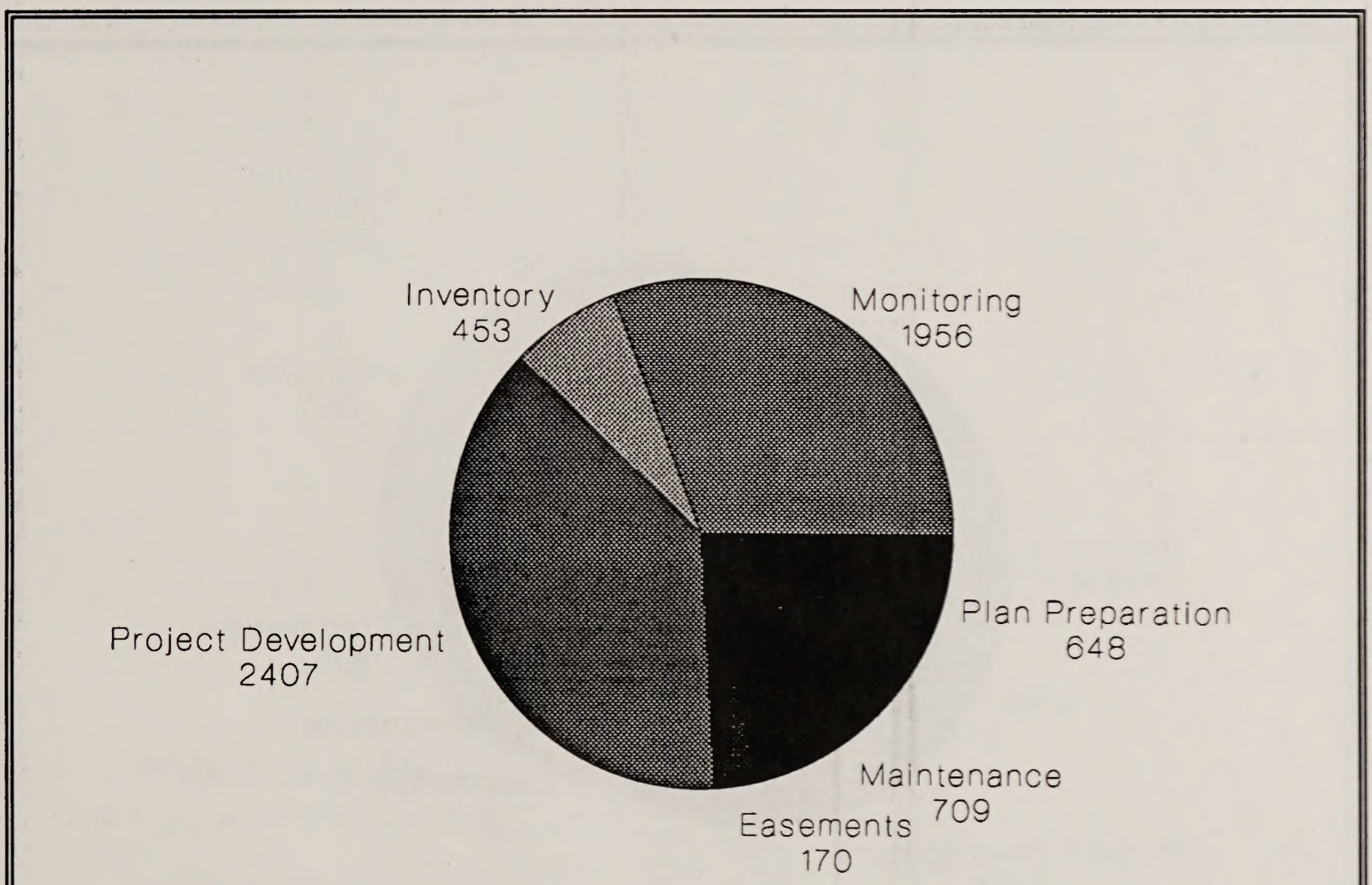


Total Costs: $2,662,000

FIGURE 5

CEDAR CITY DISTRICT
TEN YEAR FUNDING NEEDS

(values in thousands)

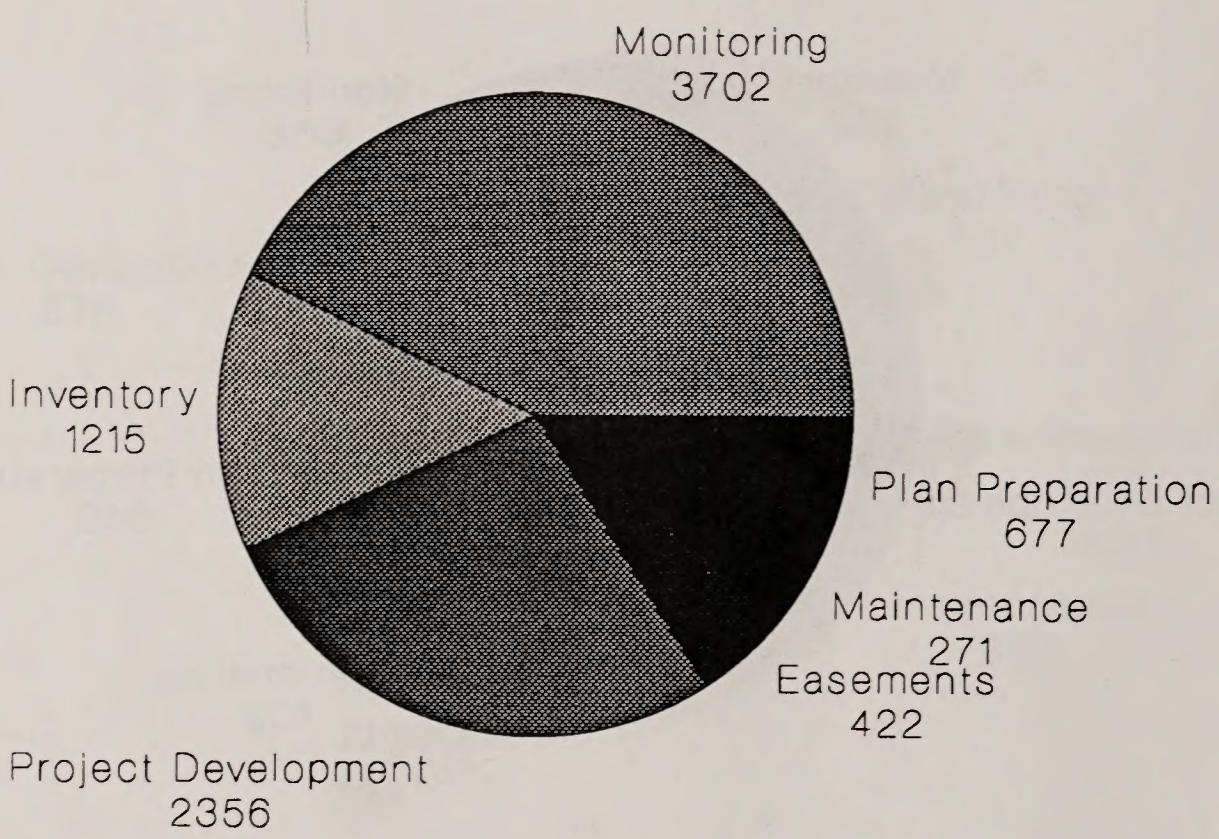


Total Costs: $6,343,000

FIGURE 6

RICHFIELD DISTRICT
TEN YEAR FUNDING NEEDS

(values in thousands)

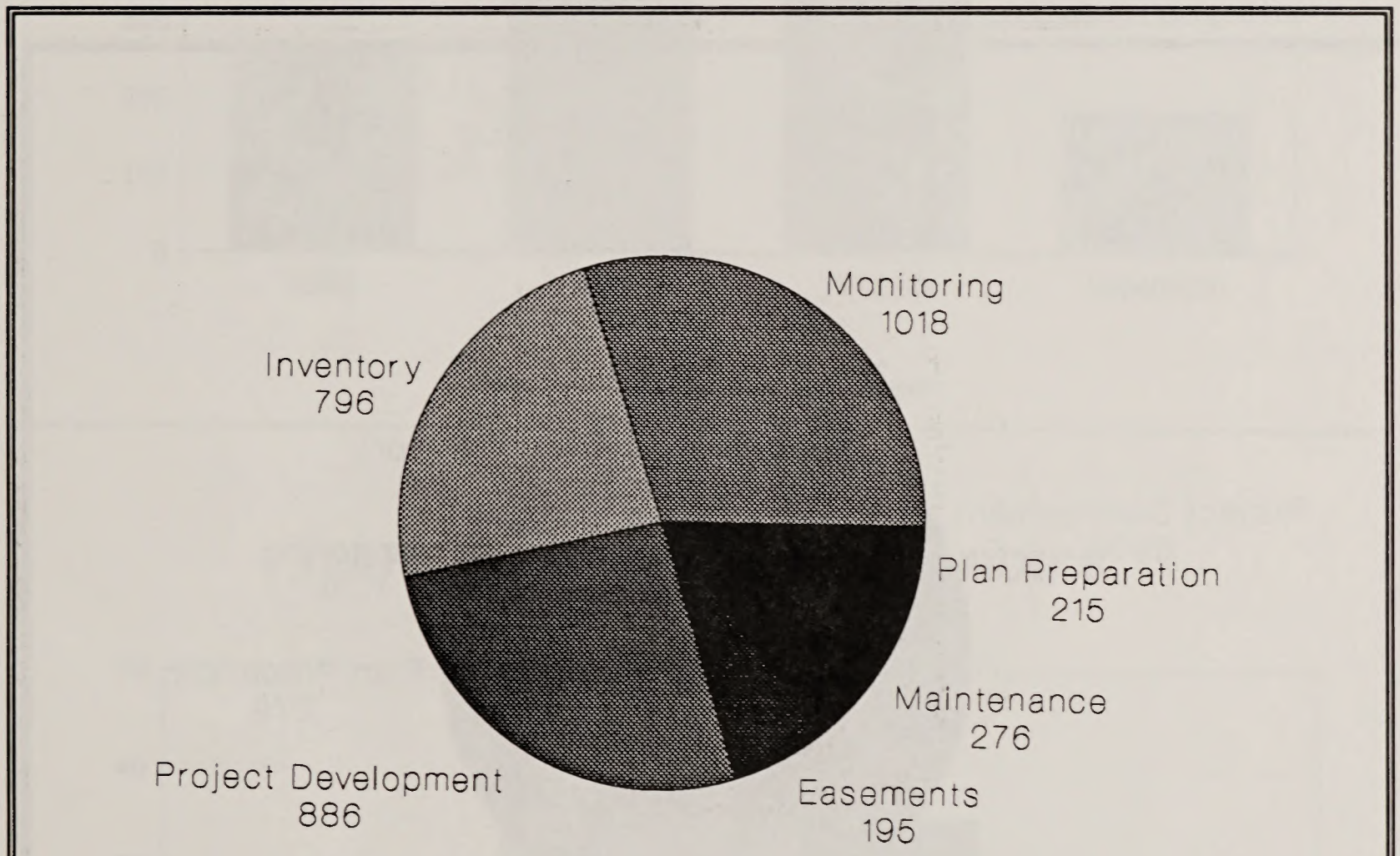


Total Costs: $8,643,000

FIGURE 7

MOAB DISTRICT
TEN YEAR FUNDING NEEDS

(values in thousands)

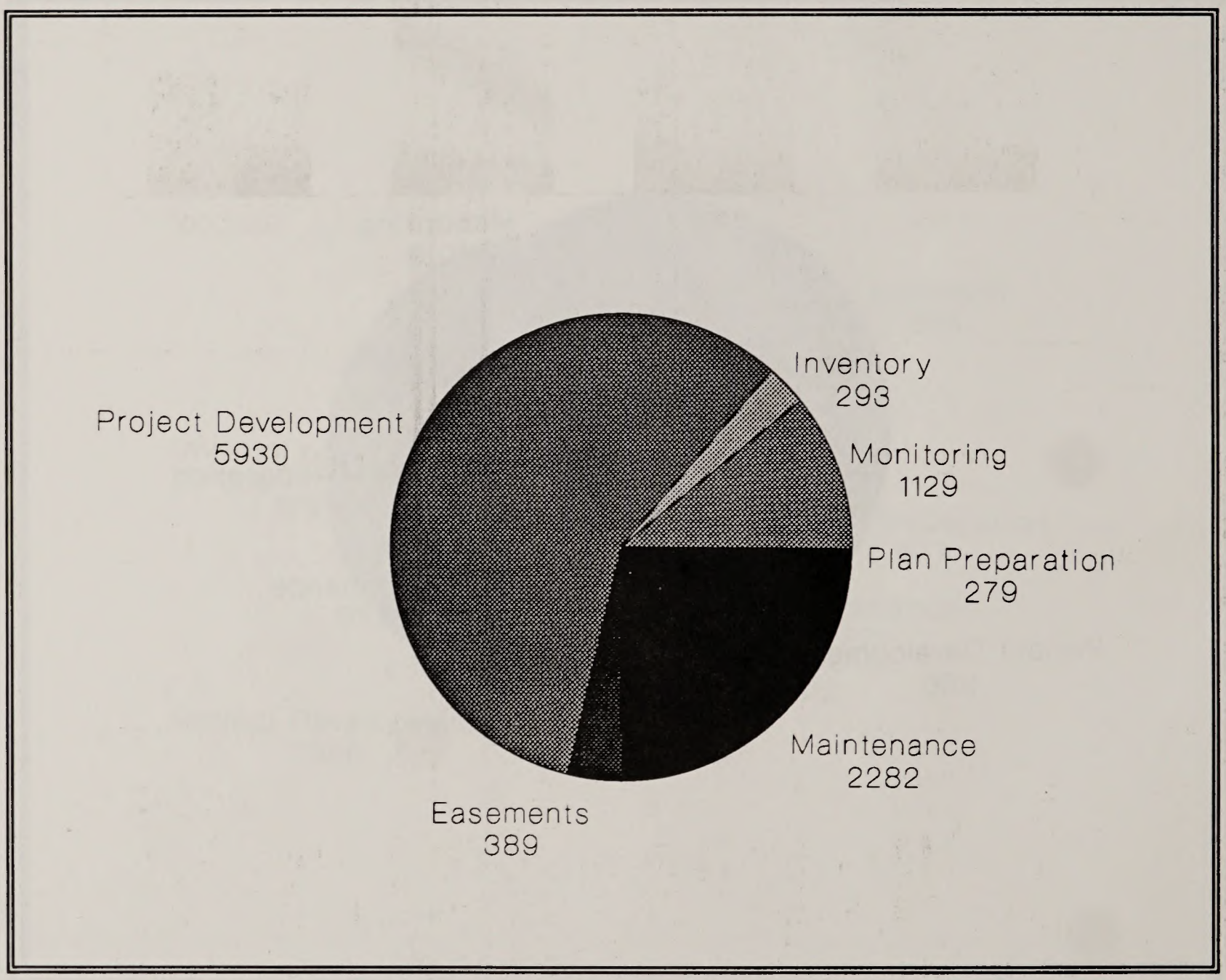


Total Costs: $3,386,000

FIGURE 8

VERNAL DISTRICT
TEN YEAR FUNDING NEEDS

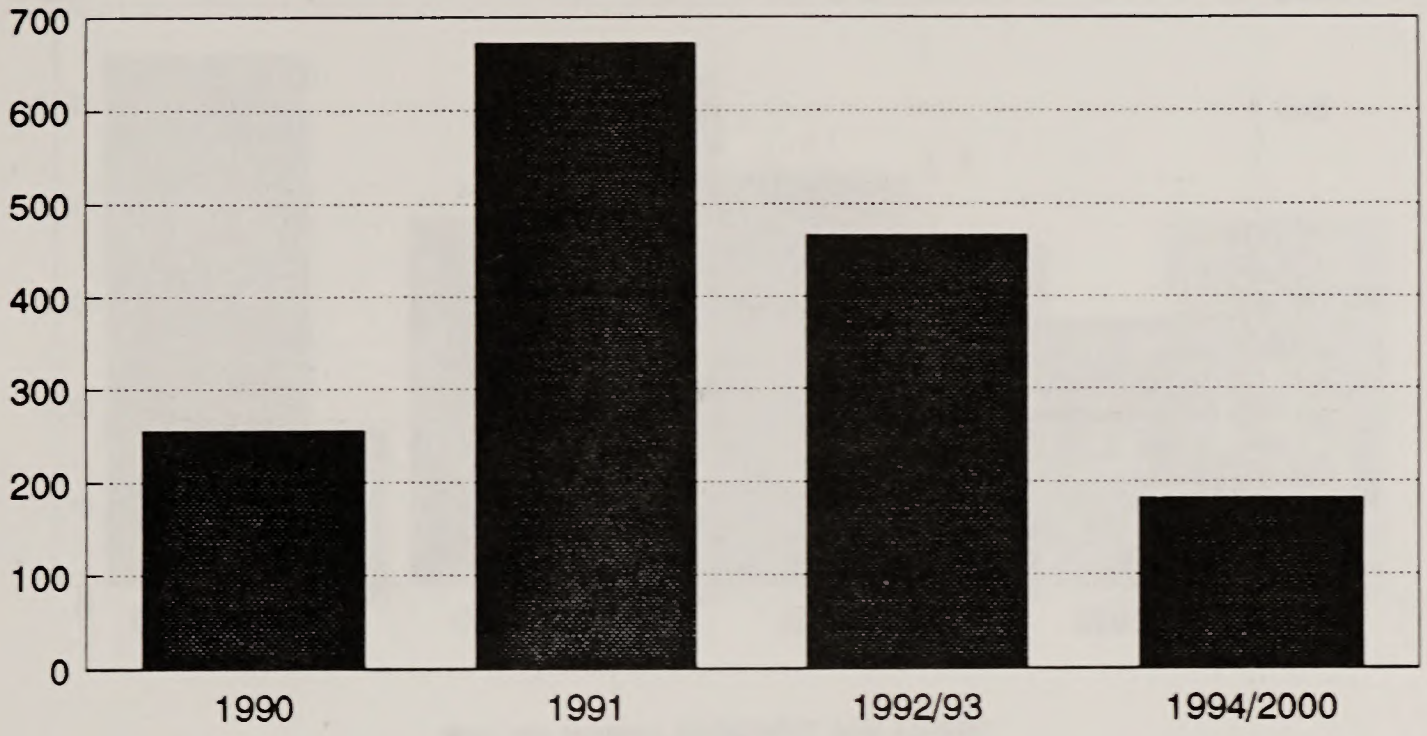
(values in thousands)



Total Costs: $10,302,000

FIGURE 9
YEARLY FUNDING NEEDS FOR INVENTORY

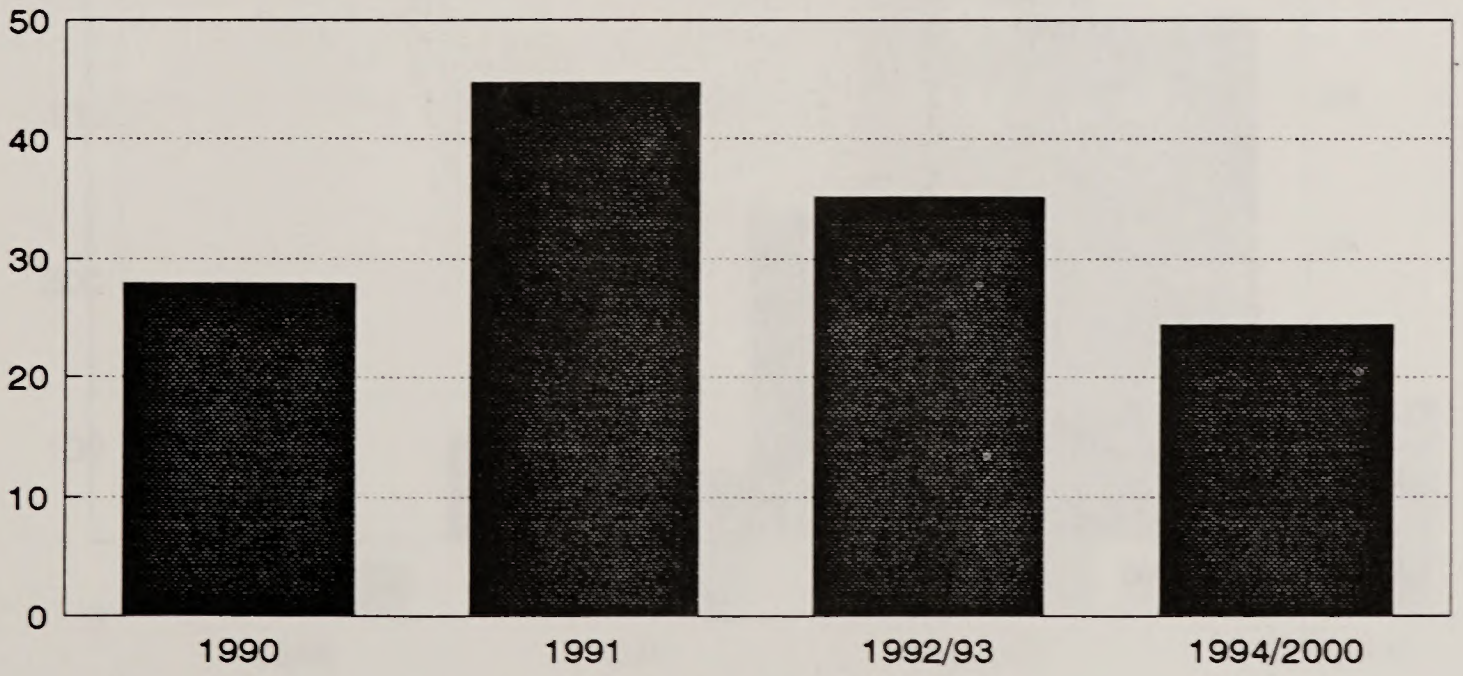
(values in thousands)



1992/93 and 1994/2000 average per year

FIGURE 10
YEARLY FUNDING NEEDS FOR MOU'S

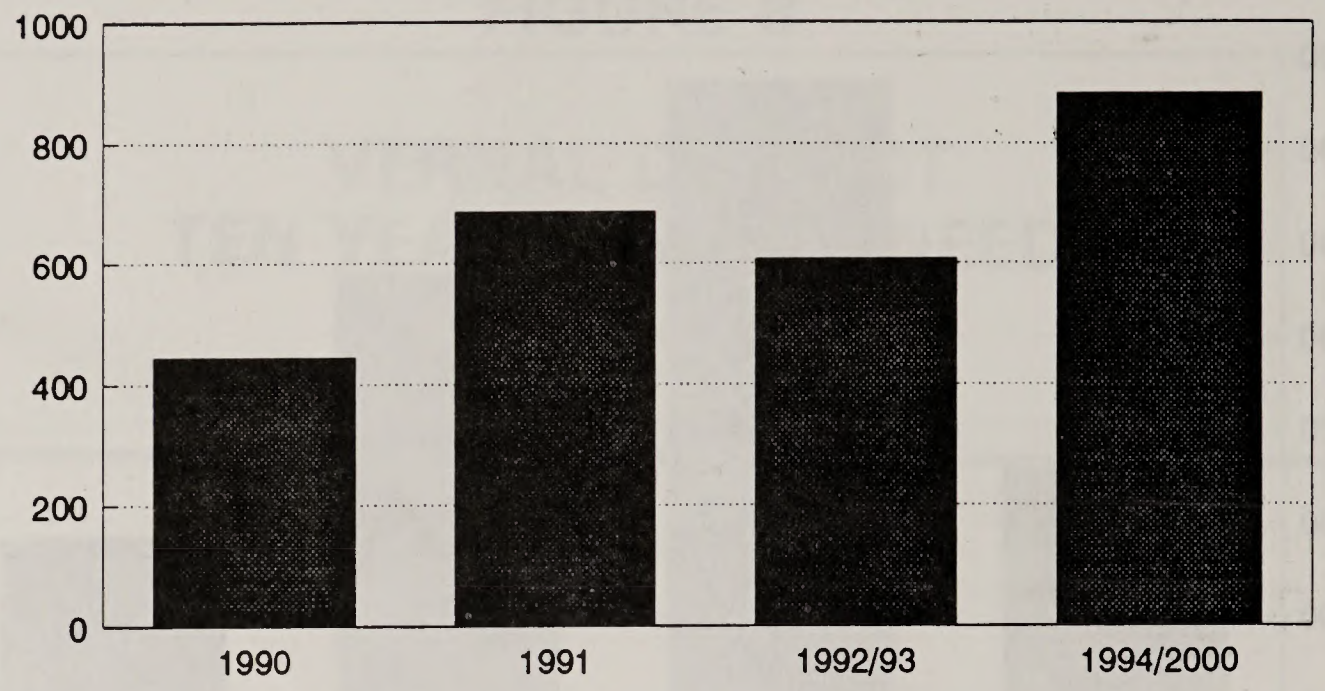
(values in thousands)



1992/1993 and 1994/2000 average per year

FIGURE 11
YEARLY FUNDING NEEDS FOR MONITORING

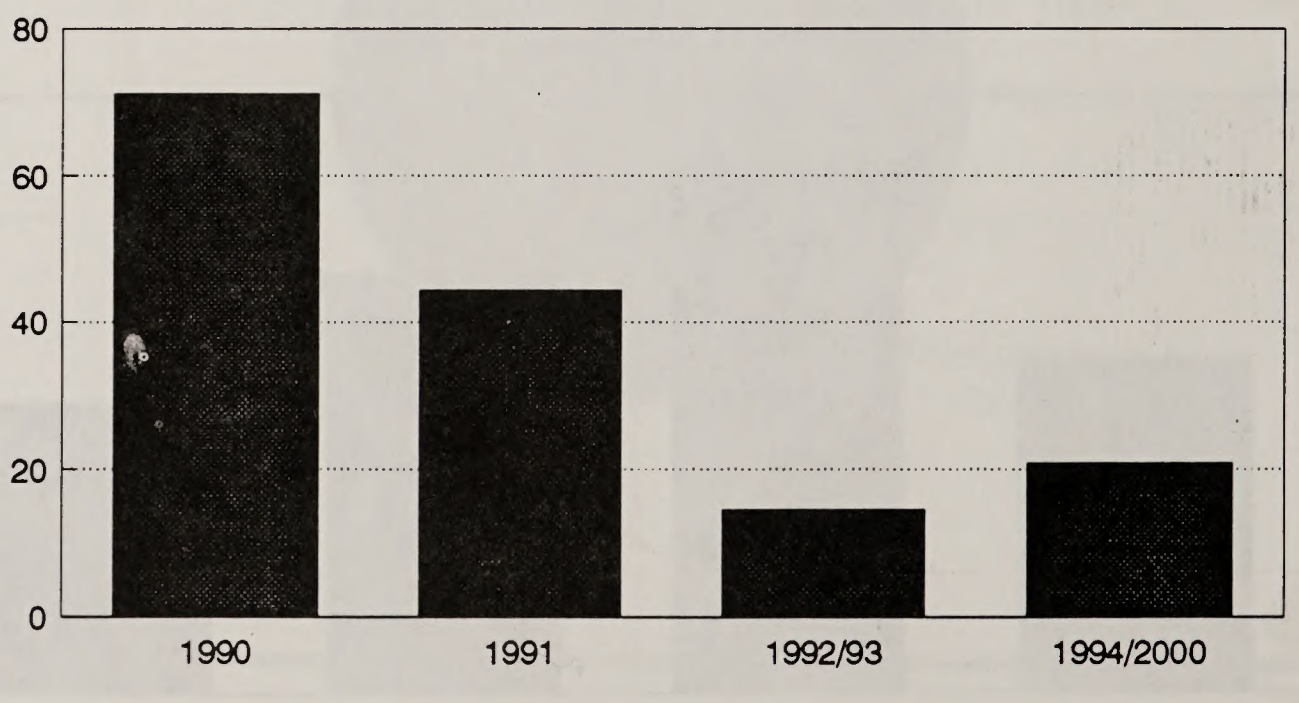
(values in thousands)



1992/93 and 1994/2000 average per year

FIGURE 12
YEARLY FUNDING NEEDS FOR PLAN REVISIONS

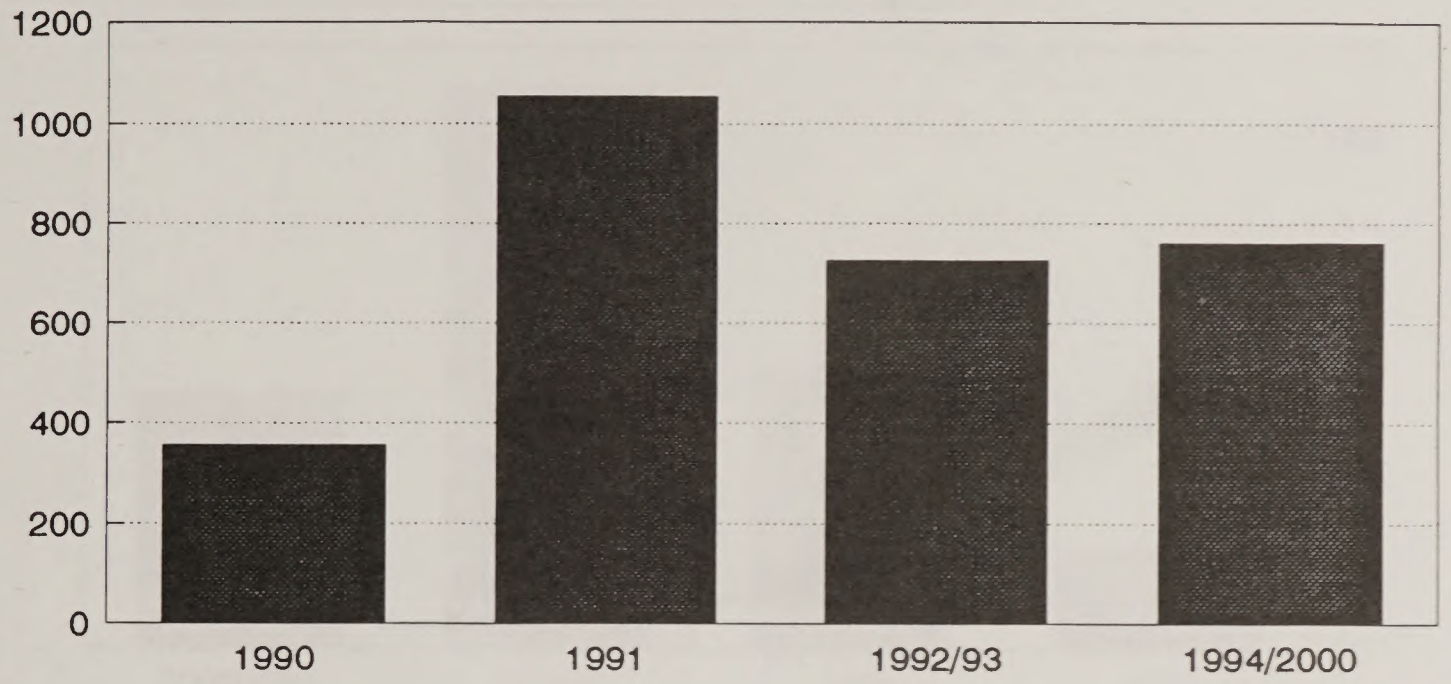
(values in thousands)



1992/93 and 1994/2000 average per year

FIGURE 13
YEARLY FUNDING NEEDS FOR PROJECT DEVELOPMENT

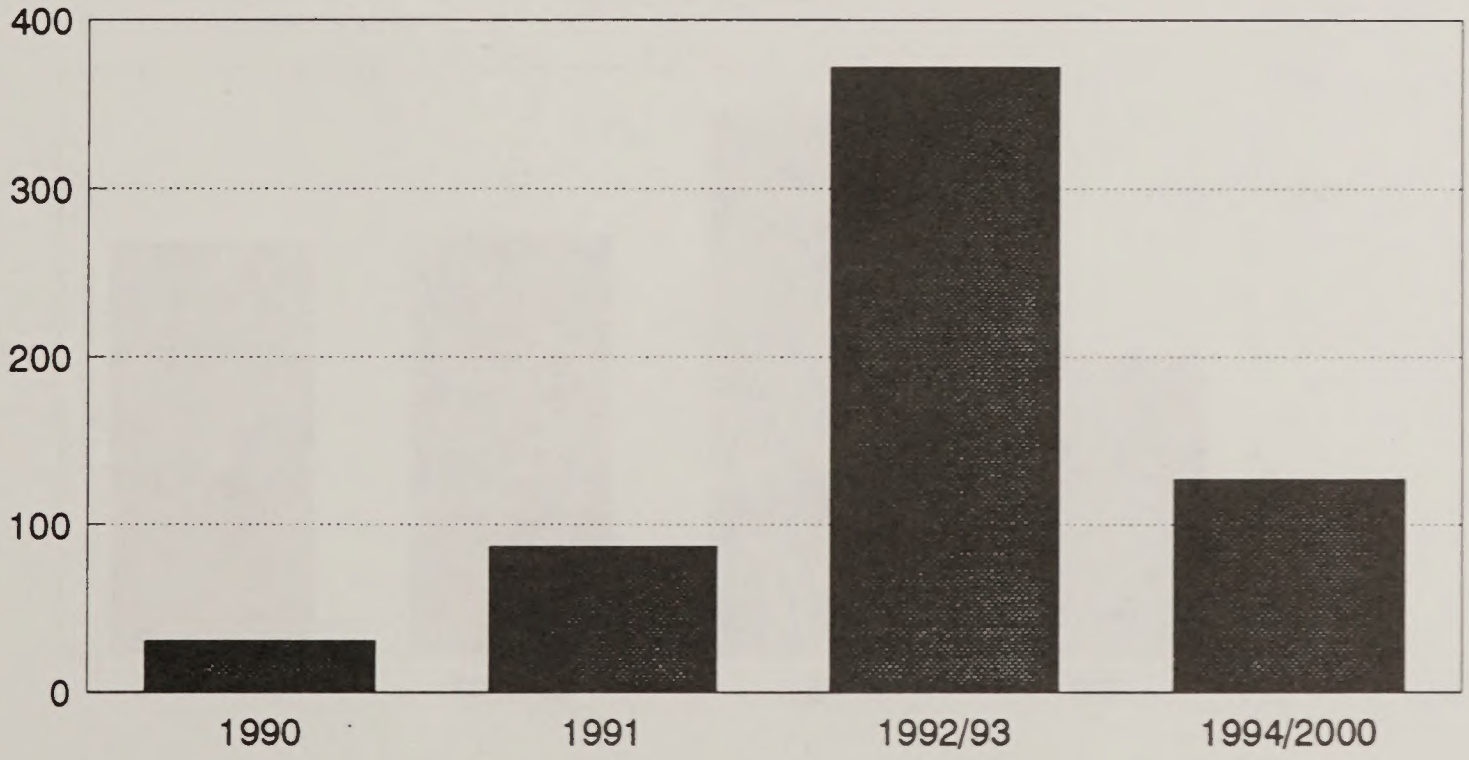
(values in thousands)



1992/93 and 1994/2000 average per year

FIGURE 14
YEARLY FUNDING NEEDS FOR EASEMENTS

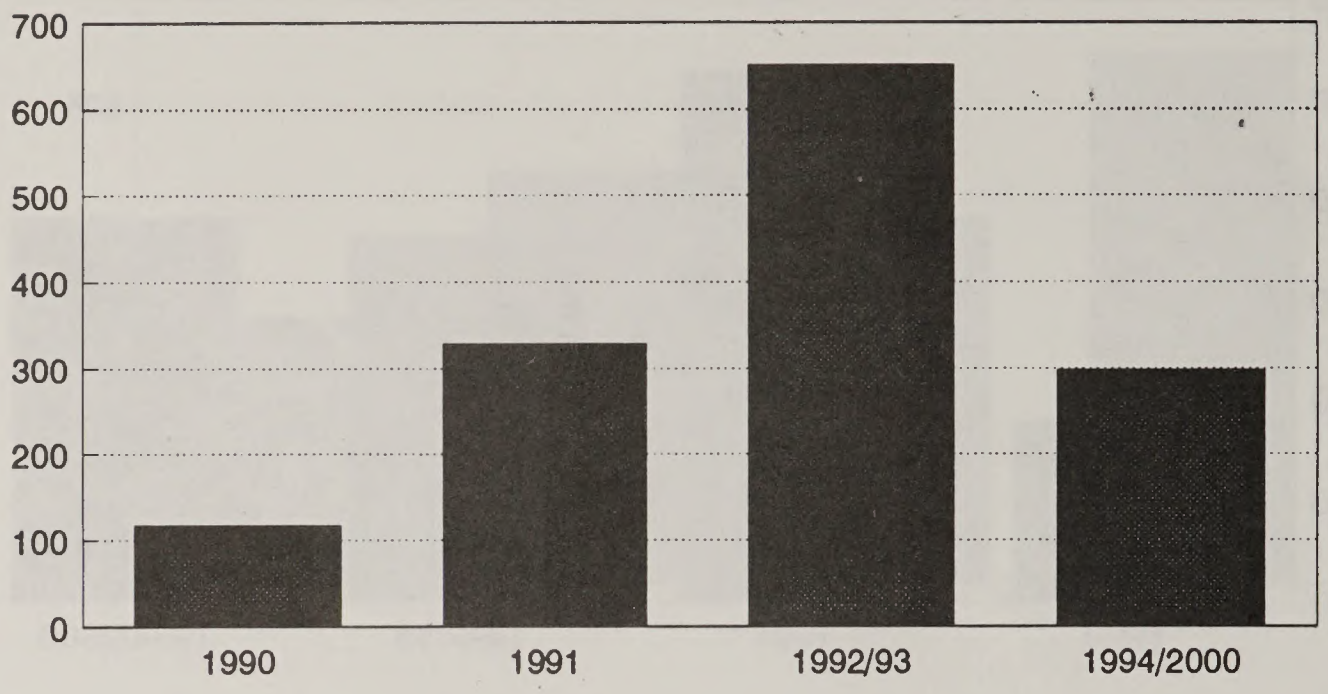
(values in thousands)



1992/93 and 1994/2000 average per year

FIGURE 15
YEARLY FUNDING NEEDS FOR MAINTENANCE

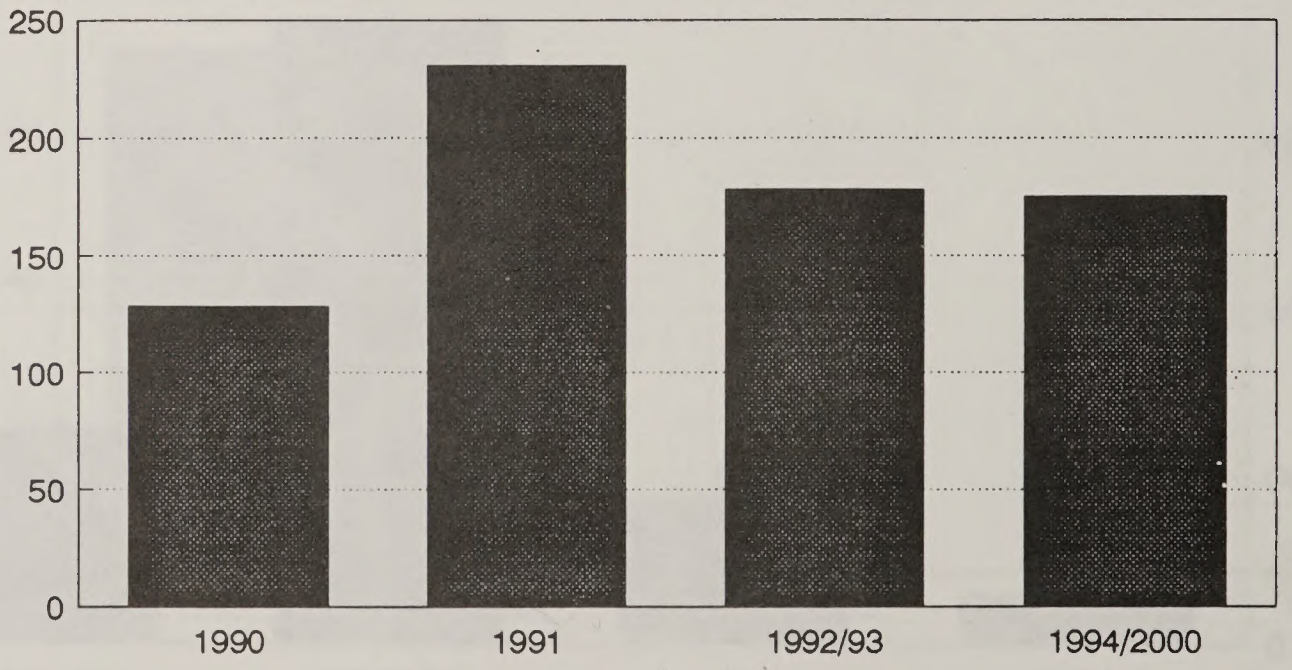
(values in thousands)



1992/93 and 1994/2000 average per year

FIGURE 16
YEARLY FUNDING NEEDS FOR PLAN PREPARATION

(values in thousands)



1992/93 and 1994/2000 average per year

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